Ceiling Convertible Split Systems

Models: MCM 015 E/ER
MCM 020 E/ER
MCM 025 E/ER
MCM 028 E/ER

M5CM 015 E/ER
M5CM 020 E/ER
M5CM 025 E/ER
M5CM 028 E/ER

McQuay® Air Conditioning

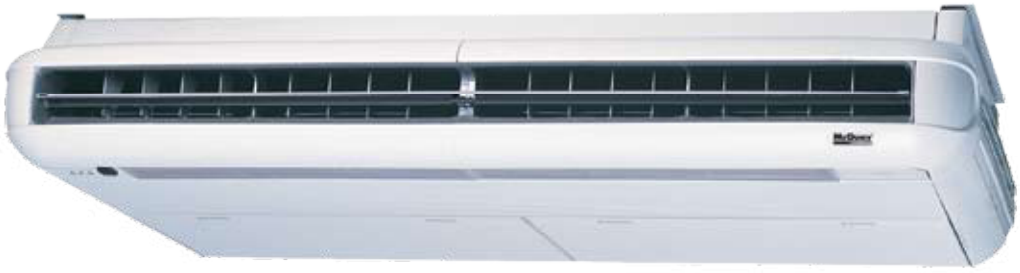
Engineered for flexibility and performance.™

Ceiling Exposed Split Systems

Models:

MCM 020D/DR
MCM 025D/DR
MCM 030D/DR

MCM / M5CM 040D/DR
MCM / M5CM 050D/DR
MCM / M5CM 062C/CR



McQuay® Air Conditioning

Engineered for flexibility and performance.™

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This manual supersede MCM-2005

Note: Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning: Moving machinery and electrical power hazards. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

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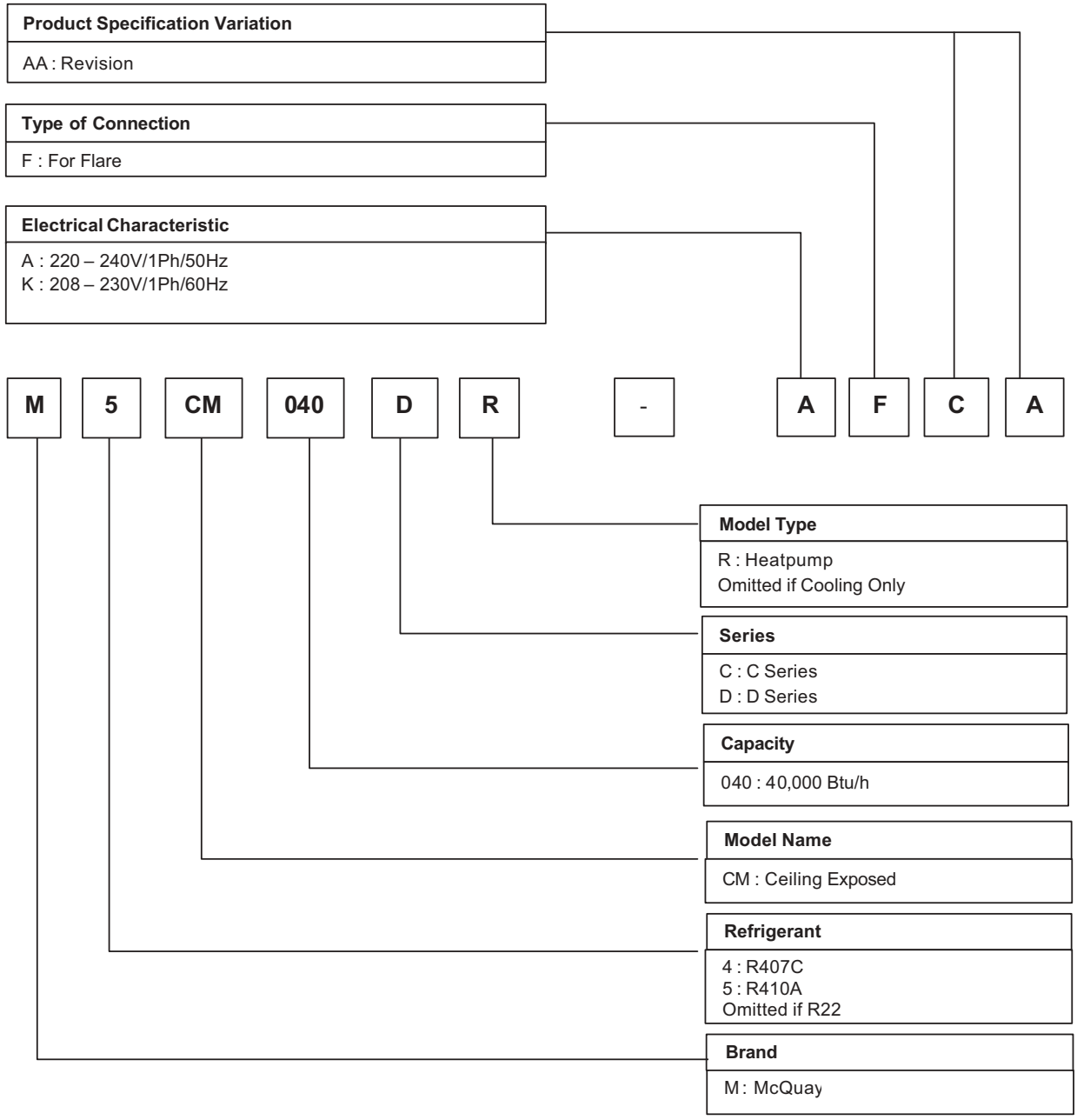
Bulletin illustrations cover the general appearance of McQuay International products at the time of publication

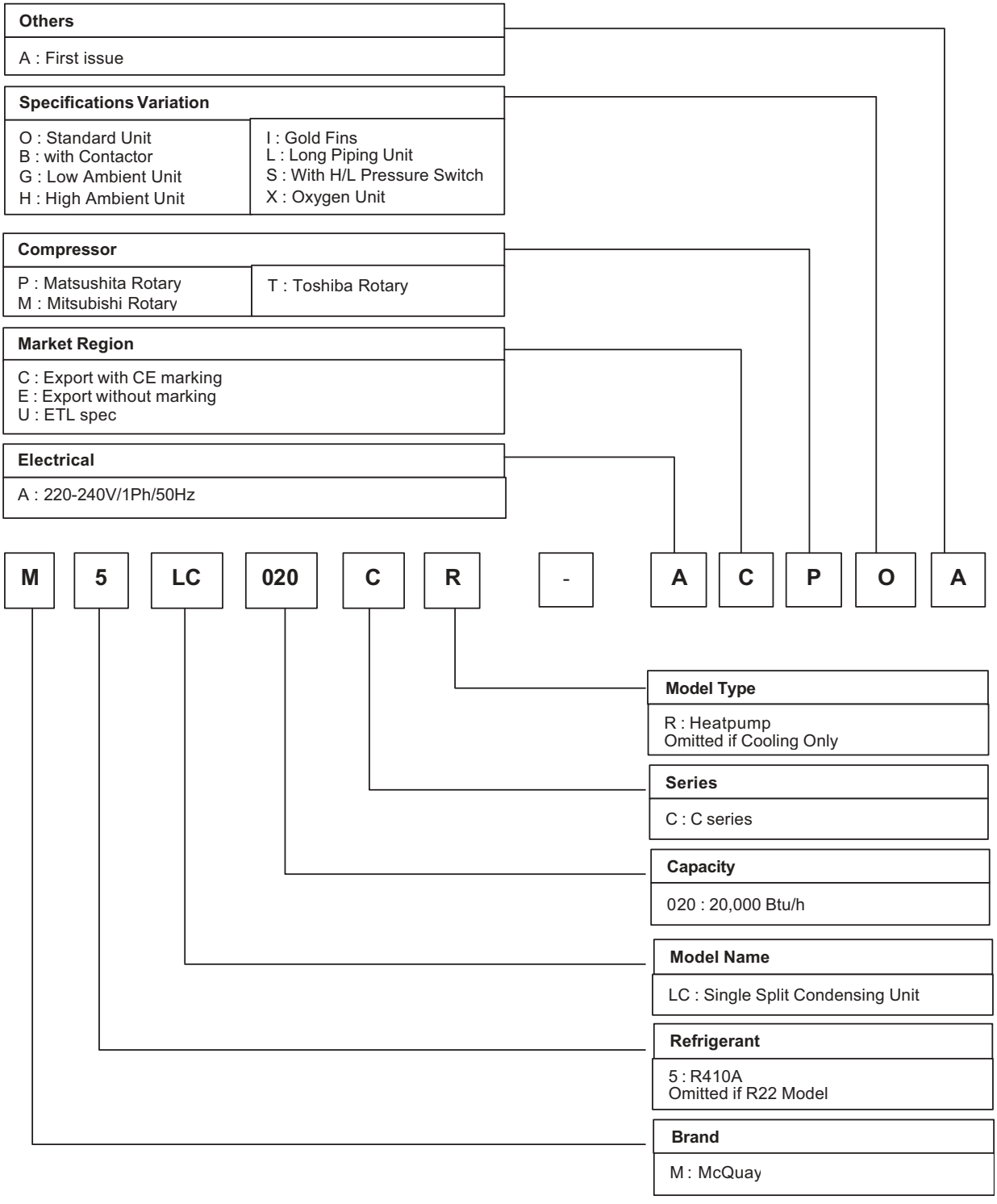
We reserve the right to make change in design and construction at any time without notice.

Nomenclature

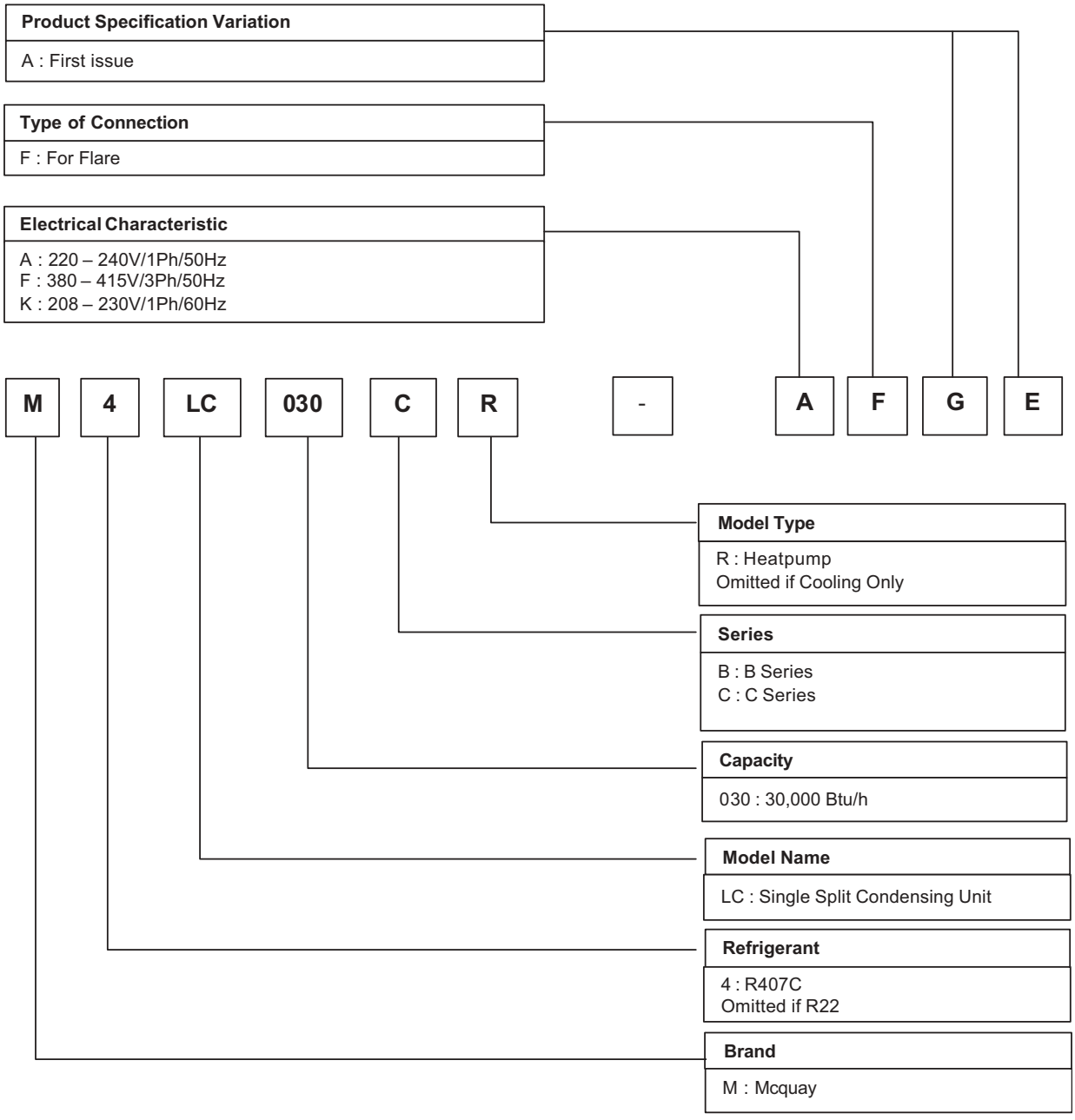
Indoor



Outdoor


Others
A : First issue
Specifications Variation
O : Standard Unit
B : with Contactor
G : Low Ambient Unit
H : High Ambient Unit
I : Gold Fins
L : Long Piping Unit
S : With H/L Pressure Switch
X : Oxygen Unit
Compressor
P : Matsushita Rotary
M : Mitsubishi Rotary
T : Toshiba Rotary
Market Region
C : Export with CE marking
E : Export without marking
U : ETL spec
Electrical
A : 220-240V/1Ph/50Hz
M 5 LC 020 C R - A C P O A
Model Type
R : Heatpump
Omitted if Cooling Only
Series
C : C series
Capacity
020 : 20,000 Btu/h
Model Name
LC : Single Split Condensing Unit
Refrigerant
5 : R410A
Omitted if R22 Model
Brand
M : McQuay

Outdoor


Product Specification Variation
A : First issue
Type of Connection
F : For Flare
Electrical Characteristic
A : 220 – 240V/1Ph/50Hz
F : 380 – 415V/3Ph/50Hz
K : 208 – 230V/1Ph/60Hz
M
4
LC
030
C
R
-
A
F
G
E
Model Type
R : Heatpump
Omitted if Cooling Only
Series
B : B Series
C : C Series
Capacity
030 : 30,000 Btu/h
Model Name
LC : Single Split Condensing Unit
Refrigerant
4 : R407C
Omitted if R22
Brand
M : Mcquay

Product Line Up

Indoor Unit
MCM-D Series Product Line Up (R22)

MCM		NONMENCLATURE	Control	Handset		Marking				Fin		Refrigerant Control		Convertible
			U1.4 PCB	SLM	G7 Handset	CE Mark	W/out Marking	ETL	SASO	Alum. (Corrugated)	Hydrophilic (Corrugated)	Cap. Tube	W/out Cap. Tube	
Cooling Model	020D	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
	025D	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
	030D	AFBB	X	X		X				X		X		
		AFCA	X		X	X				X		X		
		AFDA	X		X	X					X	X		X
		AFDF	X	X		X					X	X		X
	040D	AFBB	X	X		X					X	X		
		AFCA	X		X	X					X	X		
		AFDA	X		X	X					X	X		X
		AFDF	X	X		X					X	X		X
	050D	AFBB	X	X		X				X		X		
		AFCA	X		X	X					X	X		
		AFDA	X		X	X					X	X		X
		AFDF	X	X		X					X	X		X
	062C	AFAA	X		X	X						X		
Heat Pump Model	020DR	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
	025DR	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
	030DR	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
		AFDA	X		X	X					X		X	X
		AFDB	X	X		X					X		X	X
	040DR	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
		AFDA	X		X	X					X		X	X
		AFDB	X	X		X					X		X	X
	050DR	AFBB	X	X		X				X			X	
		AFCA	X		X	X				X			X	
		AFDA	X		X	X					X		X	X
		AFDB	X	X		X					X		X	X
	062CR	AFAA	X		X	X						X		
		AFAB	X	X		X						X		

Indoor Unit
M5CM-D Series Product Line Up (R410A)

M5CM		NONMENCLATURE	CLASSIFICATION								
			Control		Handset			Marking	Fin		Refrigerant Contro
			U1.4	L2	G7 Handset	G11 Handset	SLM	CE Mark	Hydrophilic (Slit	Aluminium (Slit)	W/out Cap.Tube
Cooling Model	040D	AFAA	X				X	X	X		X
		AFAB	X			X		X	X		X
	050D	AFAA	X				X	X	X		X
		AFAB	X			X		X	X		X
	062C	AFAA	X				X	X		X	X
		AFAB	X			X		X		X	X
Heat Pump Model	040DR	AFAA	X				X	X	X		X
		AFAB	X			X		X	X		X
	050DR	AFAA	X				X	X	X		X
		AFAB	X			X		X	X		X
	062CR	AFAA	X				X	X		X	X
		AFAB	X			X		X		X	X

Outdoor Unit
MLC Product Line Up (R22)

MLC		Nomenclature	CLASSIFICATIONS															
			Refrigerant Ctrl + Fin			Special			Safety Devices	Grille		Compressor			Marking		
			Cap. Tube	7mm Coil	Gold Fin	S.Tropica	O2	Power from OD	Contactor	SWM Grille	Back Panel Grille	Samsung Comp.	Rotary Comp.	High EER Rotary	W/O Marking	CE Marking	ETL
Cooling Model	010C	ACPOA	X										X			X	
		ACPOB	X	X									X			X	
		ACPXA	X				X	X					X			X	
		ACPXB	X	X			X	X					X			X	
		ACPYA	X		X		X	X					X		X		
		ACPYB	X	X	X		X	X					X		X		
		ACPIA	X		X								X			X	
		ACPIB	X	X	X								X			X	
		ACPBA	X						X				X			X	
	015C	ACPOA	X										X			X	
		ACPXA	X				X	X					X			X	
		ACPYA	X		X		X	X					X		X		
		ACPIA	X		X								X			X	
		ACPBA	X		X				X				X			X	
	018C	ACSOA	X									X				X	
		ACSIA	X		X							X				X	
	020B	AFHC	X			X					X			X		X	
		AFHI	X		X	X					X			X		X	
	020C	ACPOA	X											X		X	
		ACPIA	X		X									X		X	
	025B	AFHC	X			X			X		X		X			X	
		AFHI	X		X	X			X		X		X			X	
	025C	ACPOA	X											X		X	
		ACPIA	X		X									X		X	
	028C	ACPOA												X		X	
		ACPIA			X									X		X	
Heat Pump Model	010CR	ACPOA	X										X			X	
		ACPOB	X	X									X			X	
		ACPIA	X		X								X			X	
		ACPIB	X	X	X								X			X	
	015CR	ACPOA	X										X			X	
		ACPIA	X		X								X			X	
	020BR	AFEC	X			X					X			X		X	
	020CR	ACPOA	X											X		X	
		ACPIA	X		X									X		X	
	025BR	AFEC	X			X			X		X		X			X	
	025CR	ACPOA	X											X		X	
		ACPIA	X		X									X		X	
	028CR	ACPOA	X											X		X	
		ACPIA	X		X									X		X	

Outdoor Unit
MLC Product Line Up (R22)

MLC		Nomenclature	CLASSIFICATIONS																	
			Refrigerant Ctrl + Fin			Special		Safety Devices					Grille	Compressor		Marking		
			Cap. Tube	TXV	Gold Fin	High Ambient Kit	Low Ambient Kit	Contactor	HP	LP	Nantong Press. SW	Phase Sequencer	Drain Elbow	Cope.Scroll Comp.	Sanyo Scroll Comp.	W/O Marking	CE Marking	ETL
Cooling Model	030C	AFGE						X	X	X	X			X			X	
		AFGF				X		X	X	X	X			X			X	
		AFGG			X			X	X	X	X			X			X	
		FFGE						X	X	X	X	X		X			X	
		FFGG			X			X	X	X	X	X		X			X	
	035C	AFGE						X	X	X	X			X			X	
		AFGG			X			X	X	X	X			X			X	
	040C	FFFK						X	X	X	X	X			X		X	
		AFGE						X	X	X	X			X			X	
		AFGG			X			X	X	X	X			X			X	
		FFGE						X	X	X	X	X		X			X	
		FFGF				X		X	X	X	X	X		X			X	
		FFGG			X			X	X	X	X	X		X			X	
	050C	FFFK						X	X	X	X	X			X		X	
		FFGE						X	X	X	X	X		X			X	
		FFGF				X		X	X	X	X	X		X			X	
		FFGG			X			X	X	X	X	X		X			X	
	061C	FFFE						X	X	X	X	X		X			X	
		FFFF				X		X	X	X	X	X		X			X	
		FFFG			X			X	X	X	X	X		X			X	
		FFFK						X	X	X	X	X			X		X	
Heat Pump Model	030CR	AFFB	X	X				X	X		X		X	X			X	
		AFFC	X	X		X		X	X		X		X	X			X	
		AFFD	X	X	X			X	X		X		X	X			X	
		FFFB	X	X				X	X		X	X	X	X			X	
		FFFD	X	X	X			X	X		X	X	X	X			X	
	035CR	AFFB	X	X				X	X				X	X			X	
		AFFD	X	X	X			X	X				X	X			X	
	040CR	AFFB	X	X				X	X		X		X	X			X	
		AFFD	X	X	X			X	X		X		X	X			X	
		FFFB	X	X				X	X		X	X	X	X			X	
		FFFC	X	X		X		X	X		X	X	X	X			X	
		FFFD	X	X	X			X	X		X	X	X	X			X	
		FFFE	X	X				X	X	X	X	X	X		X		X	
	50CR	FFFB	X	X				X	X		X	X	X	X			X	
		FFFC	X	X		X		X	X		X	X	X	X			X	
		FFFD	X	X	X			X	X		X	X	X	X			X	
		FFFE	X	X				X	X	X	X	X	X		X		X	
	061CR	FFFB	X					X	X		X	X	X	X			X	
		FFFC	X			X		X	X		X	X	X	X			X	
		FFFD	X		X			X	X		X	X	X	X			X	
		FFFE	X					X	X	X	X	X	X		X		X	

Outdoor Unit
M4LC Product Line Up (R407C)

	M4LC	Nomenclature	CLASSIFICATIONS											
			Refrigerant Ctrl + Fin			Safety Devices				Grille		Comp		Marking	
			Cap. Tube	TXV	Gold Fin	Contactor	HP	LP	Nantong Press.SW	Back Panel Grille	Drain Elbow	Rotary Comp.	Scroll Comp.	W/O Marking	CE Marking
Cooling Model	010B	AFCA	X							X		X			X
	015B	AFCA	X							X		X			X
	020B	AFCA	X							X		X			X
		FFCA	X			X				X		X			X
	025B	AFCA	X							X		X			X
		FFCA	X			X				X		X			X
	030C	AFFA				X	X	X	X				X		X
		FFFA				X	X	X	X				X		X
	035C	AFFA				X	X	X	X				X		X
	040C	AFFA				X	X	X	X				X		X
		FFFA				X	X	X	X				X		X
	050C	FFFA				X	X	X	X				X		X
	061C	FFFA				X	X	X	X				X		X
Heat Pump Model	010BR	AFDA	X							X		X			X
	015BR	AFEA	X							X		X			X
	020BR	AFDA	X							X		X			X
		FFDA	X			X				X		X			X
	025BR	AFDA	X							X		X			X
		FFDA	X			X				X		X			X
	030CR	AFFA	X	X		X	X		X		X		X		X
		FFFA	X	X		X	X		X		X		X		X
	035CR	AFFA	X	X		X	X		X				X		X
	040CR	AFFA	X	X		X	X		X		X		X		X
		FFFA	X	X		X	X		X		X		X		X
	050CR	FFFA	X	X		X	X		X		X		X		X
	061CR	FFFA	X			X	X		X		X		X	X	

Outdoor Unit
M5LC Product Line Up (R410A)

	M5LC	Nomenclature	CLASSIFICATIONS												
			Refrigerant Ctrl + Fin			Special	Safety Devices			Grille		Compressor			Marking	
			Cap. Tube	TXV	Gold Fin	O2	Contactor	HP	LP	Back Panel Grille	Drain Elbow	Rotary Comp.	Diet Rotary Comp.	Scroll Comp.	W/O Marking	CE Marking
Cooling Model	010C	ACPOA	X									X				X
		ACPXA	X			X						X				X
	015C	ACPOA	X									X				X
		ACPOC	X										X			X
		ACPXA	X			X						X				X
		ACPXC	X			X							X			X
	020C	ACPOA	X									X				X
	025C	ACPOA	X									X				X
	028C	ACPOA	X									X				X
	035C	FCCOA	X	X			X	X	X					X		X
	040C	FCCOA	X	X			X	X	X					X		X
	050C	FCCOA	X	X			X	X	X					X		X
Heat Pump Model	010CR	ACPOA	X									X				X
	015CR	ACPOA	X									X				X
		ACPOC	X										X			X
	020CR	ACPOA	X									X				X
	025CR	ACPOA	X									X				X
	028CR	ACPOA	X									X				X
	035CR	FCCOA	X	X			X	X	X					X		X
	040CR	FCCOA	X	X			X	X	X					X		X
	050CR	FCCOA	X	X			X	X	X					X		X

Features

Ultra Slim New Stylish Design Profile

This unit is contemporary in design and match even the most up to date interior decor. The slim, round profile and compact design of this unit adds a touch of elegance to every decor. No indoor connection pipe and hanger bracket are visible.

Ceiling and Floor Convertible with Space Saving Installation

This unit is designed for ceiling exposed type and floor exposed type with a very economical and space saving installation. No need renovation to wall or ceiling for ceiling exposed and no foundation work is required for floor exposed installation. This easy to install and ready to operate unit ensure rapid and low installation cost.

Strong and Robust

The unit is built from strong casing material and robust parts to ensure long lasting reliable service. The drain pan is made from the POLYSTYRENE with a plastic coating on the surface to ensure no leaking and no condensation occur.

Friendly Serviceability

The air filter, electrical parts, fan and fan motor assembly can all be inspected and replace from bottom of the unit by simply removing the newly designed press in, pull out air intake grille. The POLYSTYRENE drain pan and the heat exchanger coils can remove from the unit easily by remove the bottom panel.

Microcomputer Remote Controller

The incorporated microprocessor give more accurate control and with the following extra features:

- Fan motor speed can be set at high/medium/low and automatic.
- Timer on/off - the unit can be pre-set to on and off automatically.
- Electronic thermostat - room temperature is precisely controlled resulting in energy saving and increase comfort.
- Sleep mode automatically increase set temperature since room temperature is lower at night thus achieving healthy sleep.

Wireless Remote Controller

The compact wireless remote controller makes it possible to operate the air conditioner anywhere within the room.

Auto or Manual Control On Vertical Airflow Direction

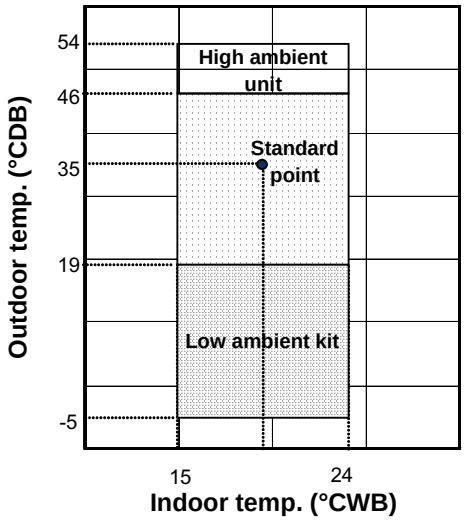
With auto control, the louver will automatically swing up and down to create an excellent air distribution. You can select your desired horizontal air flow direction by adjusting the vertical grille.

Application Information

Operating Range

Ensure the operating temperature is in allowable range.

Cooling only

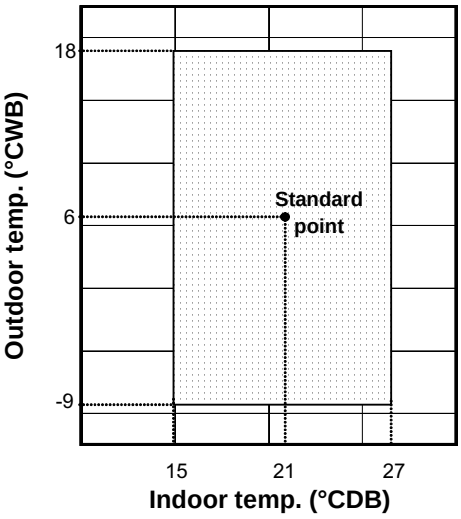


⚠ Caution :

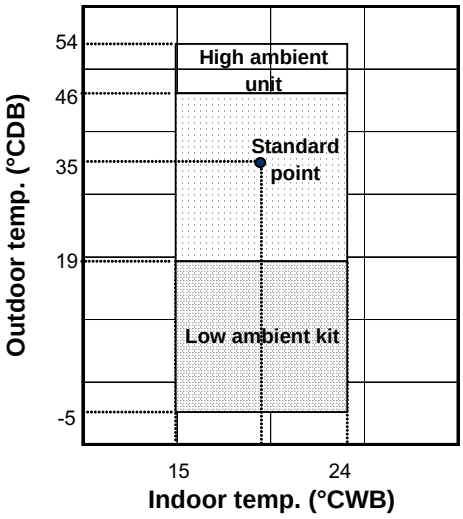
The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Heat pump

Heating



Cooling



Note :

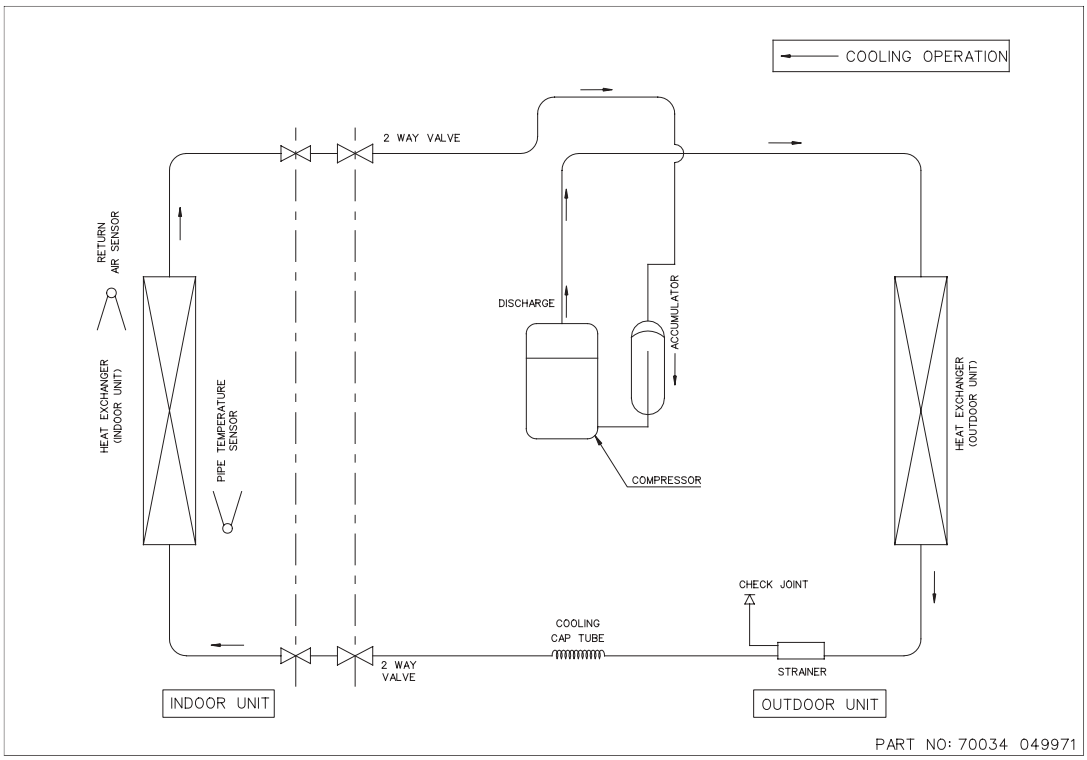
Standard operating range.

With High ambient unit. (Optional item)
Please refer to local dealer for unit of this specification.

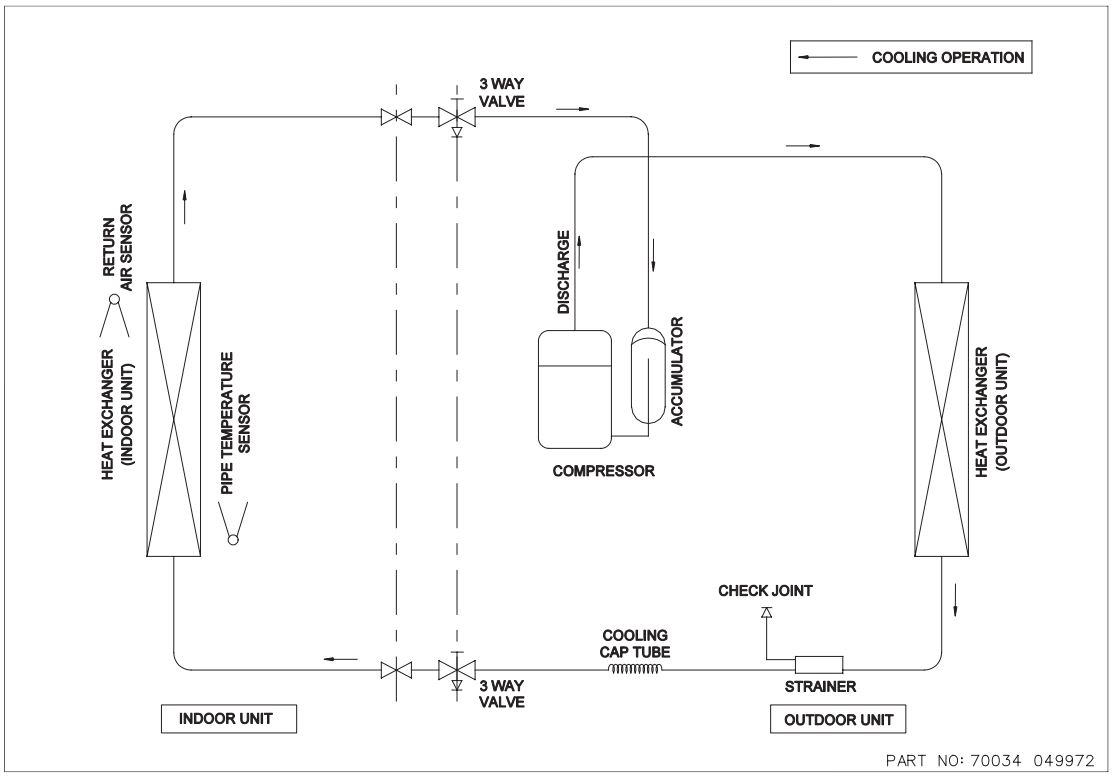
With Low ambient kit. (Optional item)
Please refer to local dealer for unit of this specification.

Refrigerant Circuit Diagram

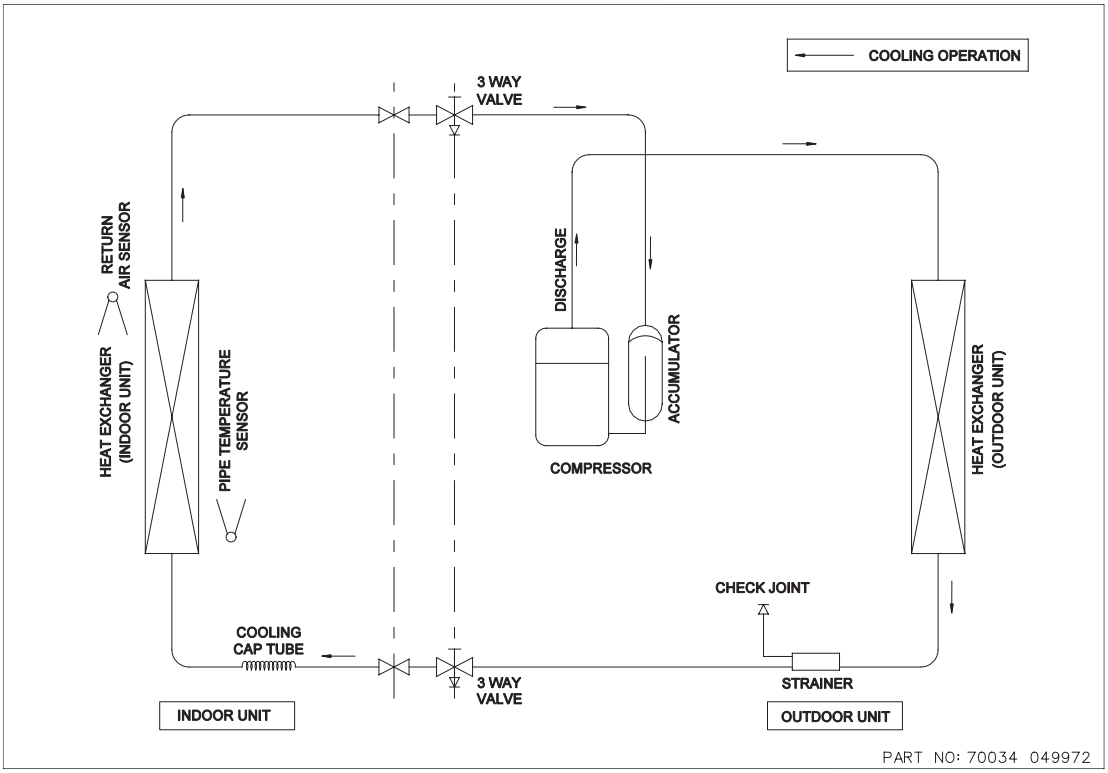
Model: MCM 020D – MLC 018 / 020C



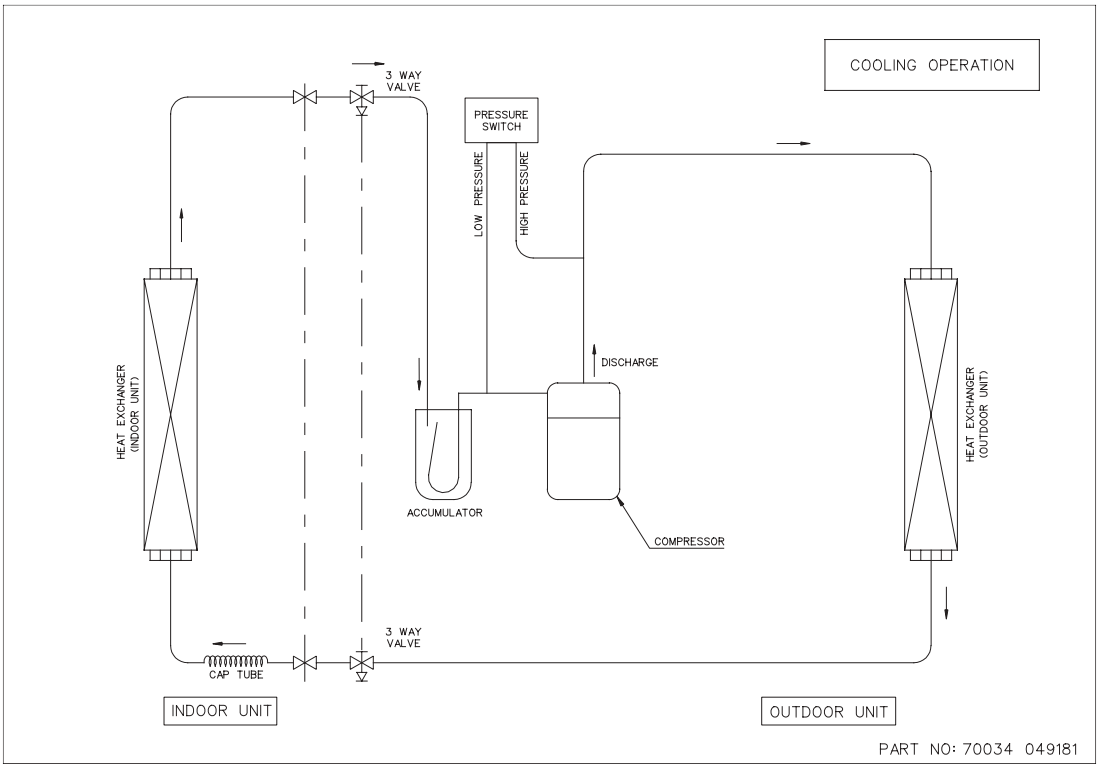
MODEL: MCM 025D – MLC 025C



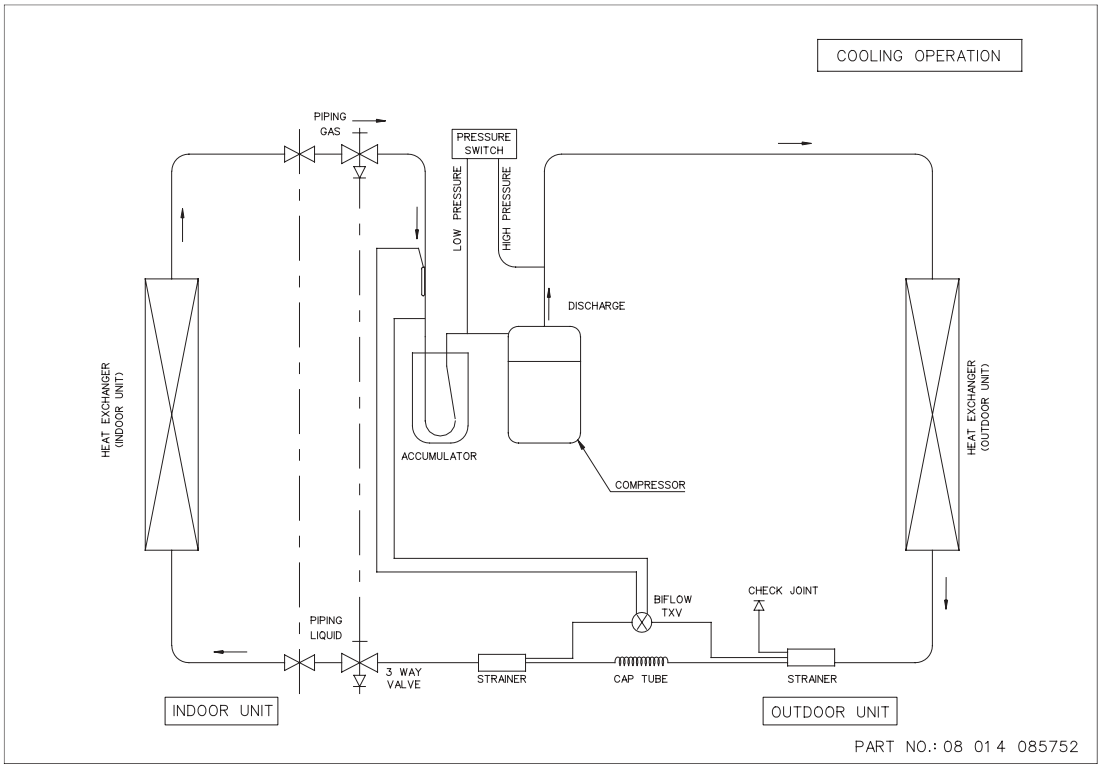
Model : MCM 030D – MLC 028C



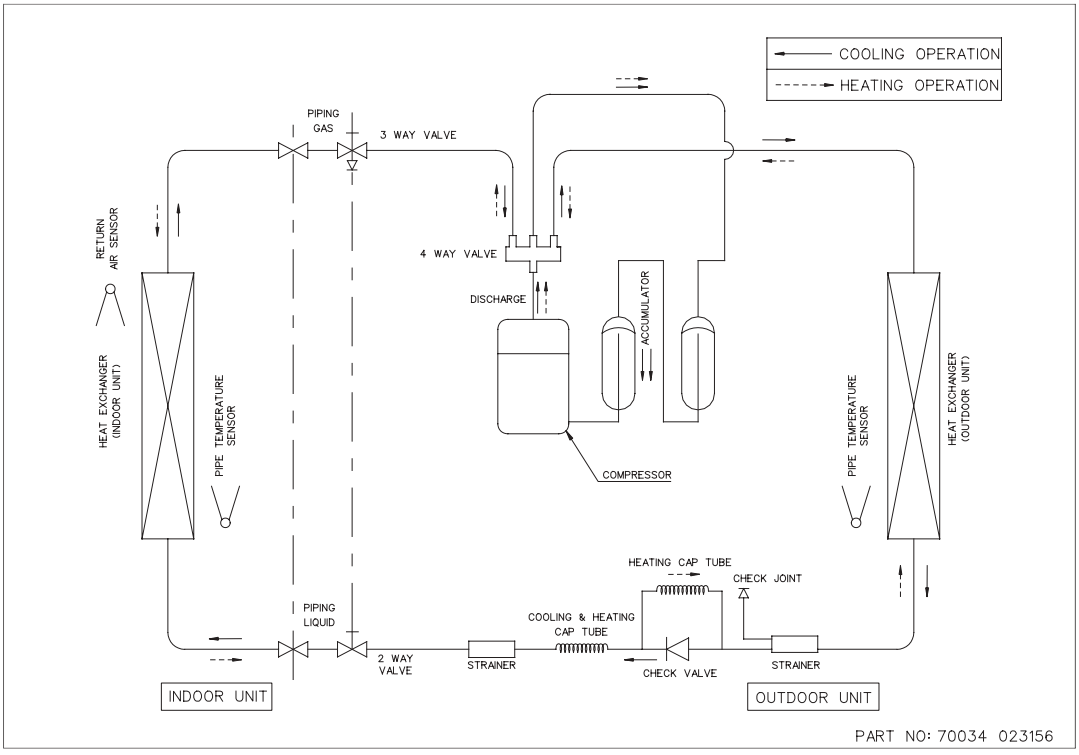
Model : MCM 030D – MLC 030C
MCM 040D – MLC 035 / 040C
MCM 050D – MLC 050C
MCM 062C – MLC 061C



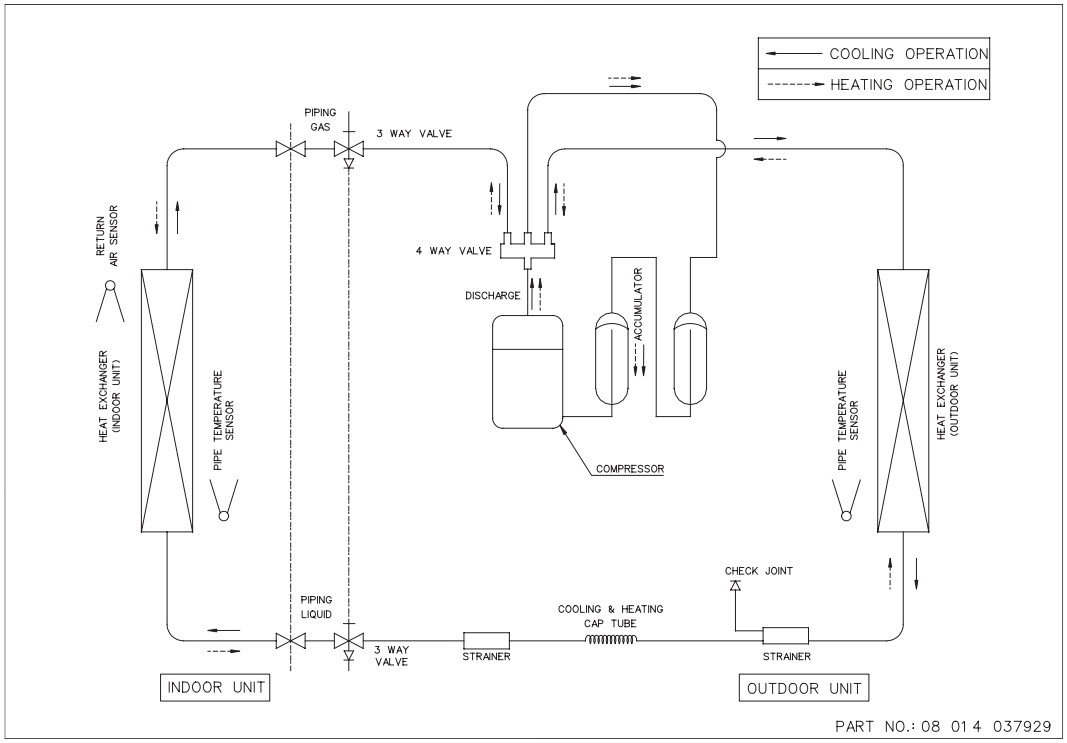
Model : **M5CM 040D – M5LC 035 / 040C**
M5CM 050D – M5LC 050C
M5CM 062C – M5LC 061C



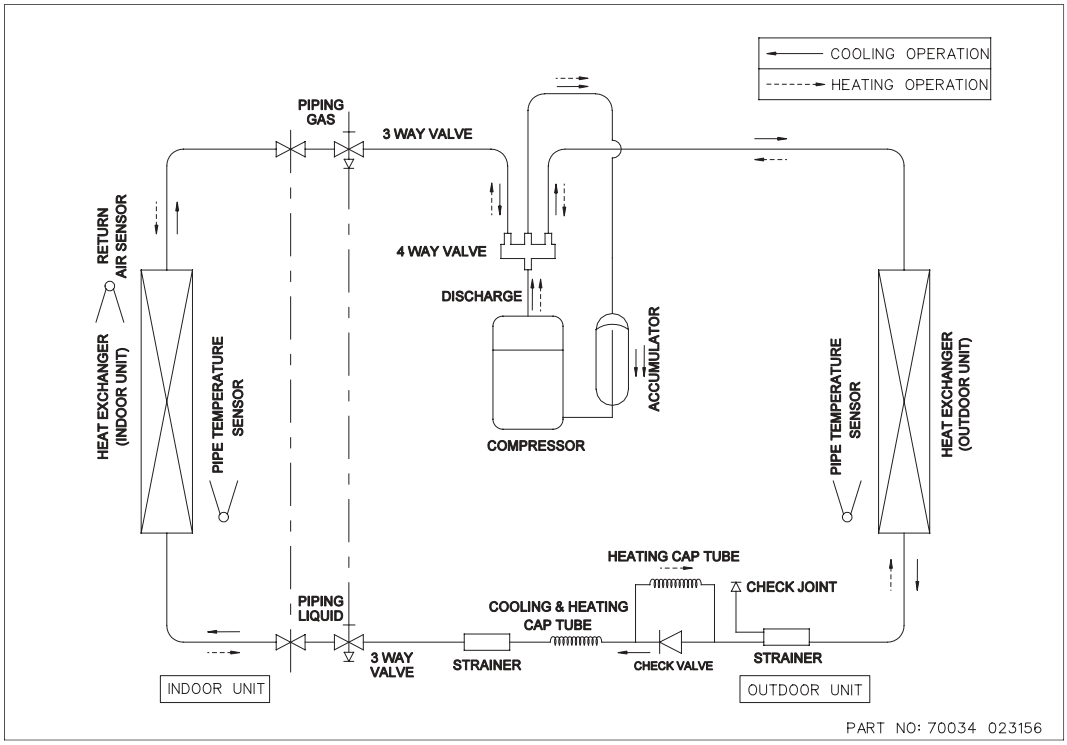
Model : **MCM 020DR – MLC 020CR**



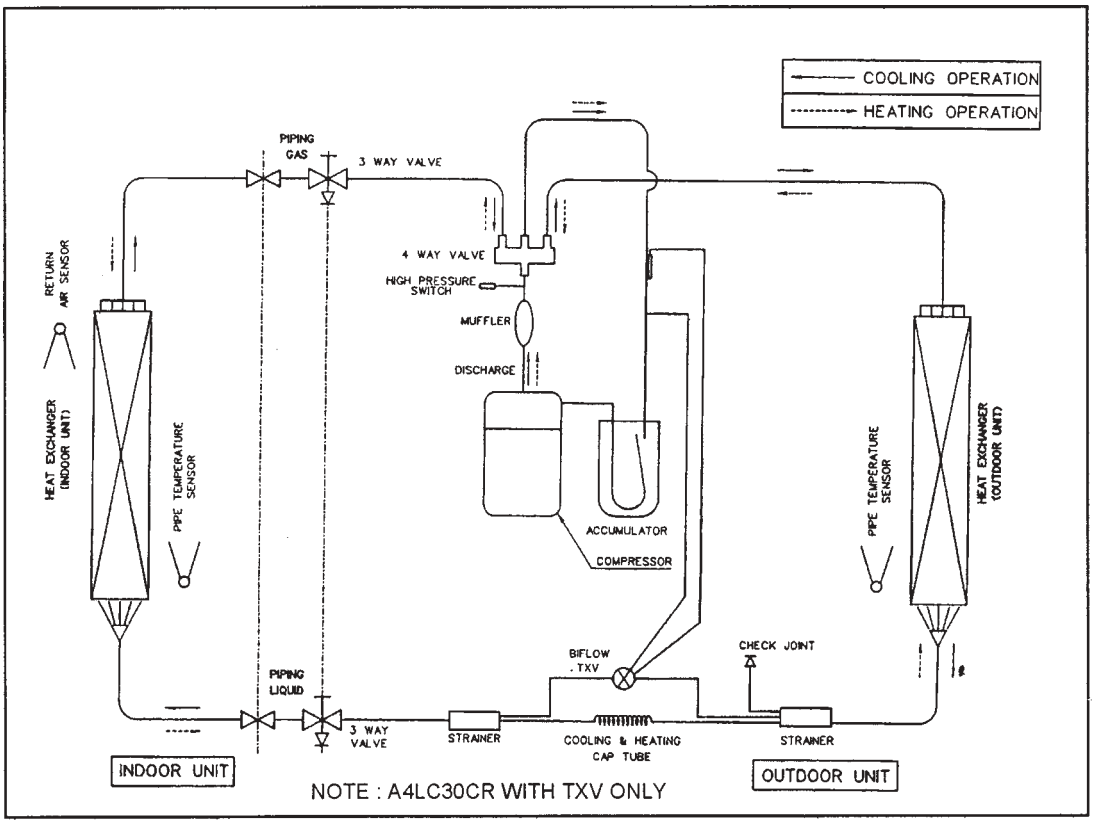
Model : MCM 025DR – MLC 025CR



Model : MCM 030DR – MLC 028CR

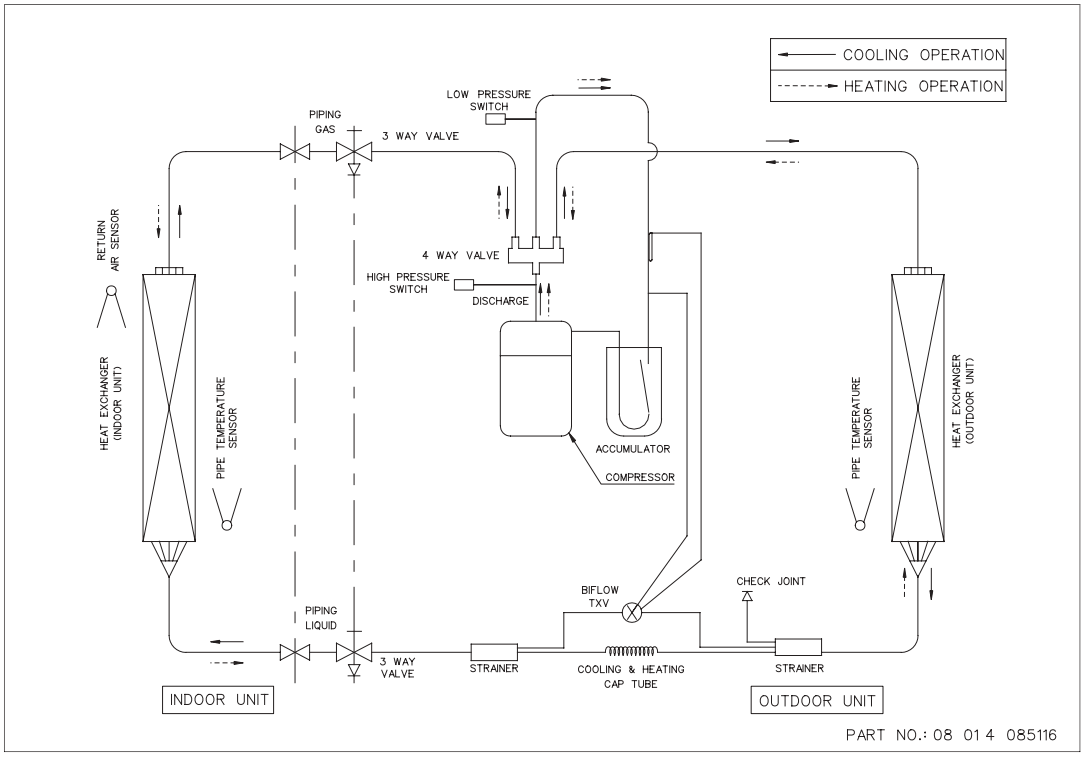


Model : **MCM 030DR – MLC 030CR**
MCM 040DR – MLC 035 / 040CR
MCM 050DR – MLC 050CR

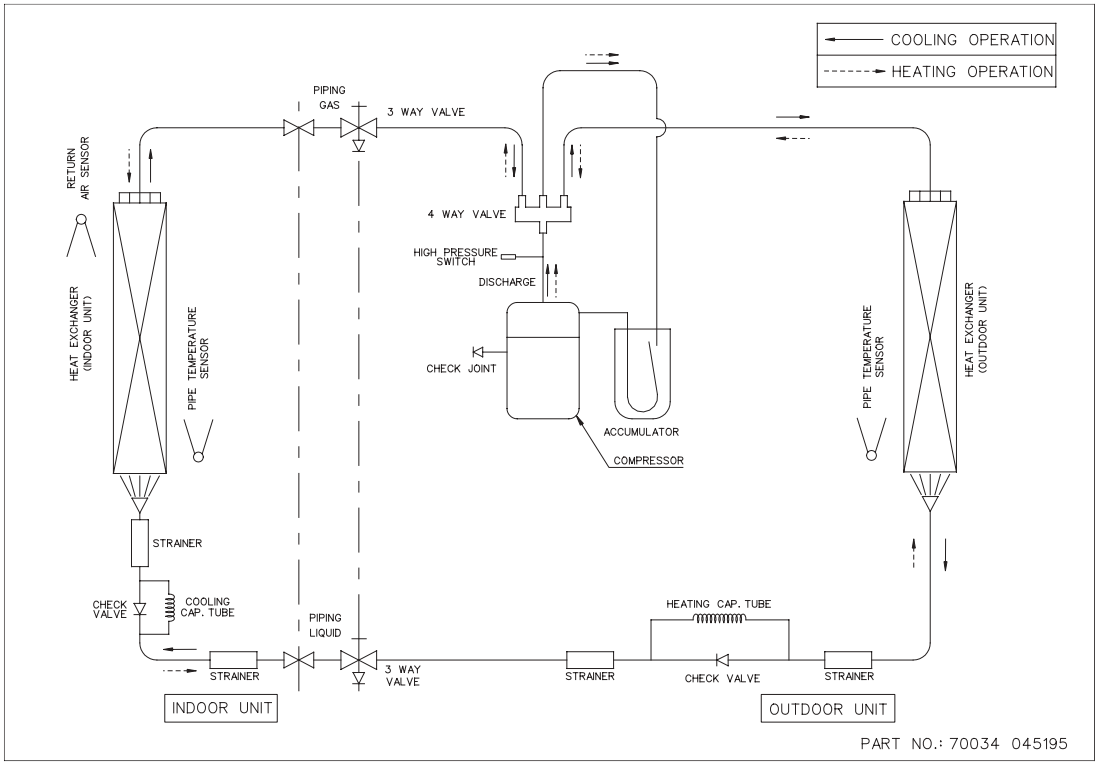


Model :

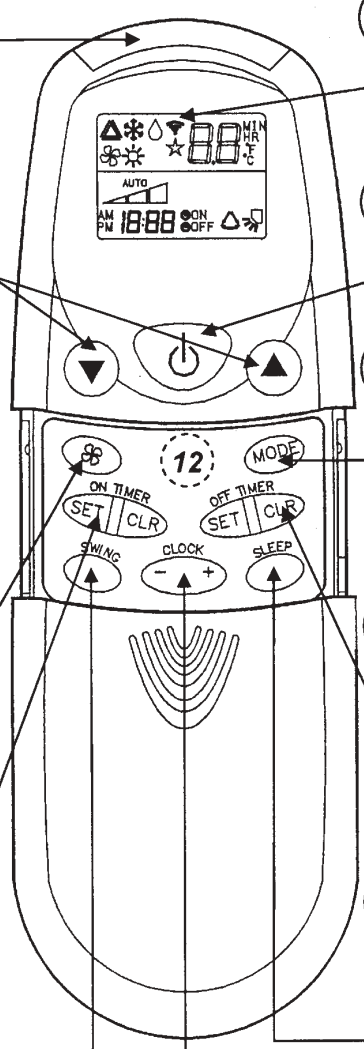
M5CM 040DR – M5LC 035 / 040CR
M5CM 050DR – M5LC 050CR
M5CM 062CR – M5LC 061CR



Model : MCM 062CR – MLC 061CR



G7 Remote Controller



1 .Transmission source

- The source where the signal will be transmitted.

2 Signal Transmission indication

- Blink to confirm the last setting has been send to the unit.

3 On/Off Button

- Press once to start the air conditioner.
- Press again to stop the unit.

4 Temperature setting

- To set the desired room temperature, press the button to increase or decrease the set temperature.
- The temperature setting range is from 16°C to 30°C (Optional setting 18°C to 30°C).
- Press both buttons simultaneously to toggle the temperature setting between °C and °F.

5 Operation mode

- Press the MODE button to select the type of operating mode.
- For cooling only unit, the available modes are : COOL, DRY & FAN.
- For heat pump unit, the available modes are : AUTO, COOL, DRY, FAN & HEAT.

6 Fan speed selection

- Press the button until the desired fan speed is achieved.

7 ON timer setting

- Press the SET button will activate the on timer function.
- Set the desired on time by pressing the SET button continuously. If the timer is set to 7.30am, the air conditioner will turn on at 7.30 sharp.
- Press the CLR button to cancel the on timer setting.

8 OFF timer setting

- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting.

9 Automatic air swing

- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the louver move to the desired direction and press the button once again.

10 Sleep mode setting

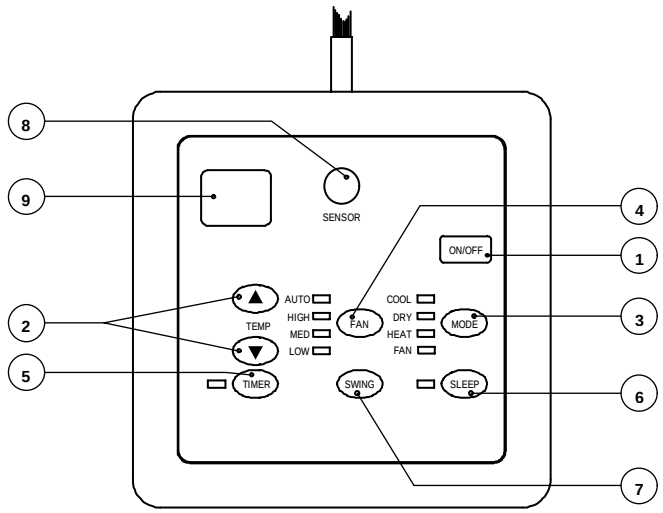
- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- When it is activated in COOL mode, the set temperature will be increased 0.5°C after 30mins, 1°C after 1 hour and 2°C after 2 hours.
- When it is activated in HEAT mode, the set temperature will be decreased 1°C after 30mins, 2°C after 1 hour and 3°C after 2 hours.

11 Clock time setting

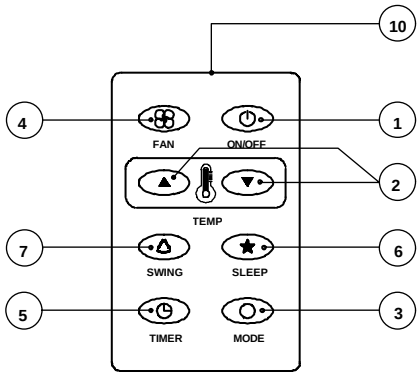
- Press button + or - to increase or decrease the clock time.

12 Turbo function (optional – only applicable to inverter unit)

- Press button for fast cooling or heating operation.
- The temperature will be increased internally if it is in the HEAT mode, decreased if in COOL or DRY mode. Fan speed will be increased if it is not at maximum speed.
- The temperature & fan speed will resume to user setting if the button is pressed again or after 20mins.
- Available under HEAT, COOL & DRY modes only.



SLM



AC-5300 (OPTIONAL)

1. "ON/OFF" switch
- Press to start the air conditioner unit.
- Press again to stop the unit.

2. Temperature setting
- Set the desired room temperature.
- Press button to increase or decrease the set temperature. Setting range are between 16°C to 30°C (60°F to 80°F).

3. Operation Modes
- Press the "mode" button for select the type of operating mode.
  - Cooling Only :
    COOL, DRY, FAN
  - Heat Pump :
    AUTO, COOL, DRY, HEAT, FAN
    (AUTO mode is represented by both COOL and HEAT LED light on)

4. Fan Speed selection.
- Press the button until the desired fan speed is achieved.

5. Timer.
- Press the set button to select the switch timer of the air conditioner unit (the setting range is between 1 to 10 hours).

6. "Sleep" mode
- Press button to activate the sleep function can only be activated under "cool" or heating mode operation. activated under "cool" mode operation, the set temperature will increase 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours. If it is actiaved under "HEAT" mode operation, the set temperature will be descreased 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours.

7. Air Swing
- Press button to activate the automatic air swing function.

8. Sensor
- Infra red sensor to receive signals from wireless controller.

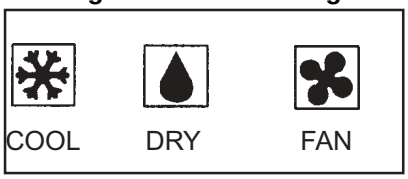
9. LED Display
- To display the set temperature (in °C) and timer delay setting (in hours).

10. Transmission source
- To transmit signals to the air conditioner.

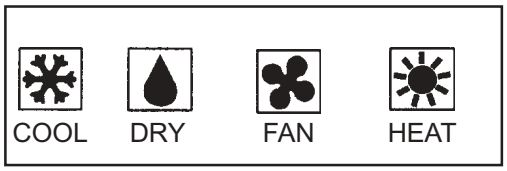
Operating State and Fault Table

Wireless Remote Controller - Handset

Cooling: LED Indicator Light Display



Heatpump : LED Indicator Light Display



Self Diagnosis Table

COOL	DRY	FAN	HEAT	Operation / Faulty Indication
○				Cool Mode
	○			Dry Mode
		○		Fan Mode
			○	Heat Mode
○			◑	Auto Mode - Cool
◑			○	Auto Mode - Heat
◑				Compressor Overload
◑	◑			Gas Leak
	◑			Outdoor Coil Sensor Open / Short
	◑	◑		Indoor Coil Sensor Open / Short
		◑		Room Sensor Open / Short

○ ON ○ / ● ON or OFF ◑ BLINKING

Wired Remote Control - SLM

Cooling / Heatpump Model

Error Code at 7 Segment Display	Operation / Faulty Indication
Blink E1	Room sensor open / short
Blink E2	Indoor coil sensor open
Blink E3	Outdoor coil sensor open
Blink E4	Compressor overload / Indoor Coil Sensor Short / Outdoor Coil Sensor Short
Blink E5	Gas leak
Blink Heat LED	Outdoor defrost (for Heatpump only)

Phsae Sequencer

The unit with Scroll Compressor can only rotate in one direction. For this reason, a protective device (phase sequencer) is fitted to prevent incorrect wiring of the electrical phases. When the three phases are not connected correctly, the phase sequencer operates, and the unit will not start. This devise is located in the control box of the outdoor unit.

The following table shows the LED indicator light for phase sequencer under normal operation and fault conditions.

	LED_P (Red)	LED_R (Yellow)	LED_S (Yellow)	LED_T (Yellow)
Normal Operation	On	-	-	-
Reverse Phase	Blink	Blink	Blink	Blink
S & T Phase Missing	Blink	-	Blink	Blink
T Phase Missing	Blink	-	-	Blink
S Phase Missing	Blink	-	Blink	-
R Phase Missing	-	-	-	-
Overload	Blink	-	-	-
Sensor Missing	Blink	On	On	On

Notes: 1. "-" means LED off.
2. When R phase missing, no LED or buzzer will indicate the error, but relay 71 (Common) and 81 (NO) will cut off.
3. The unit will check the discharge sensor availability only during power up.
*4. All errors can only recover through **manually reset**.*

Installation

Caution

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

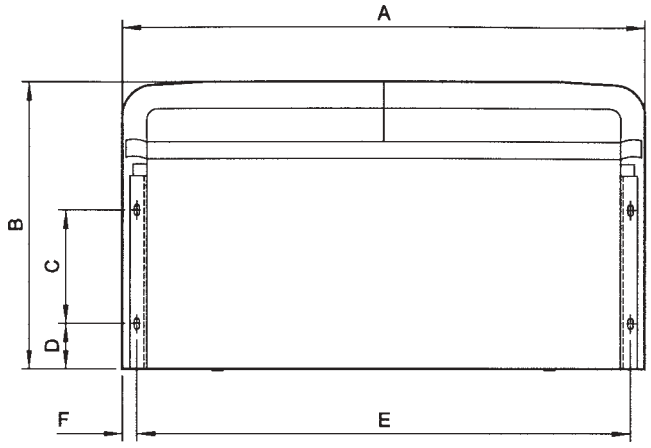
(1) Installation of Outdoor Unit

Preliminary Site Survey

- Electrical supply and installation is to conform to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 10% of rated voltage. Electricity supply lines must be independent of welding transformer which can cause high supply fluctuations.
- Ensure that the location is convenient for wiring, piping and drainage

Standard Mounting

Ensure that the overhead supports are strong enough to hold the weight of the unit. Position the hanger rods (wall mounting bracket for floor standing), and check for its alignment with the unit as shown in Figure A. Also, check that the hangers are secured and the base of the fan coil unit is leveled in both horizontal directions, taking into account the gradient for drainage flow as recommended in Figure B.



All Dimension in mm

Model	MCM020D/DR	MCM025D/DR	MCM030D/DR	MCM040D/DR	MCM050D/DR
A	1214	1214	1214	1714	1714
B	666	666	666	666	666
C	273	273	273	273	273
D	130	130	130	130	130
E	1136	1136	1136	1636	1636
F	39	39	39	39	39

MCM-D **MCM 062C**

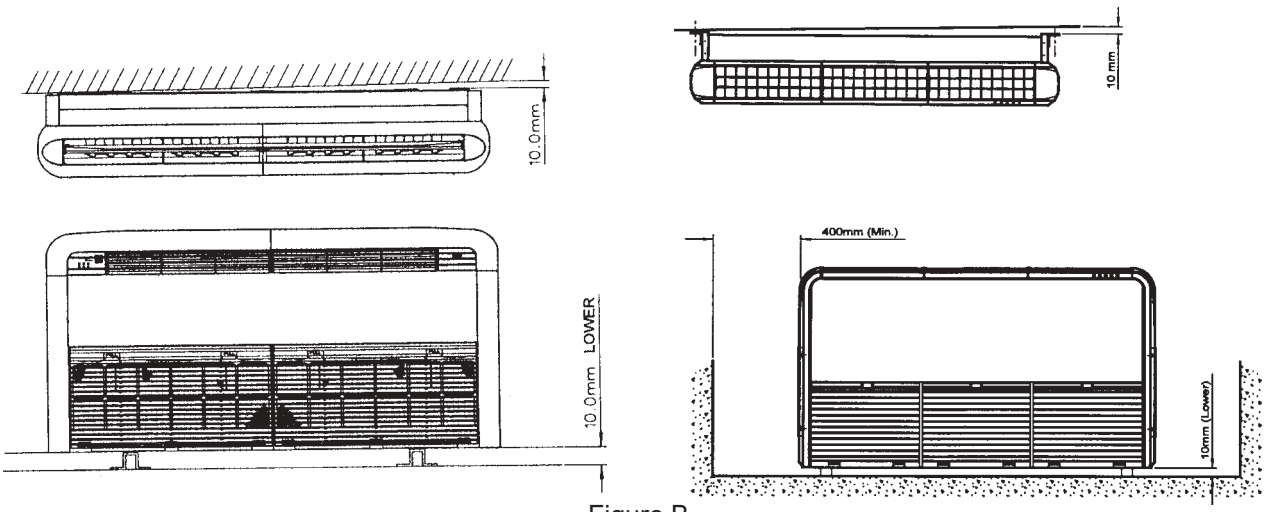


Figure B

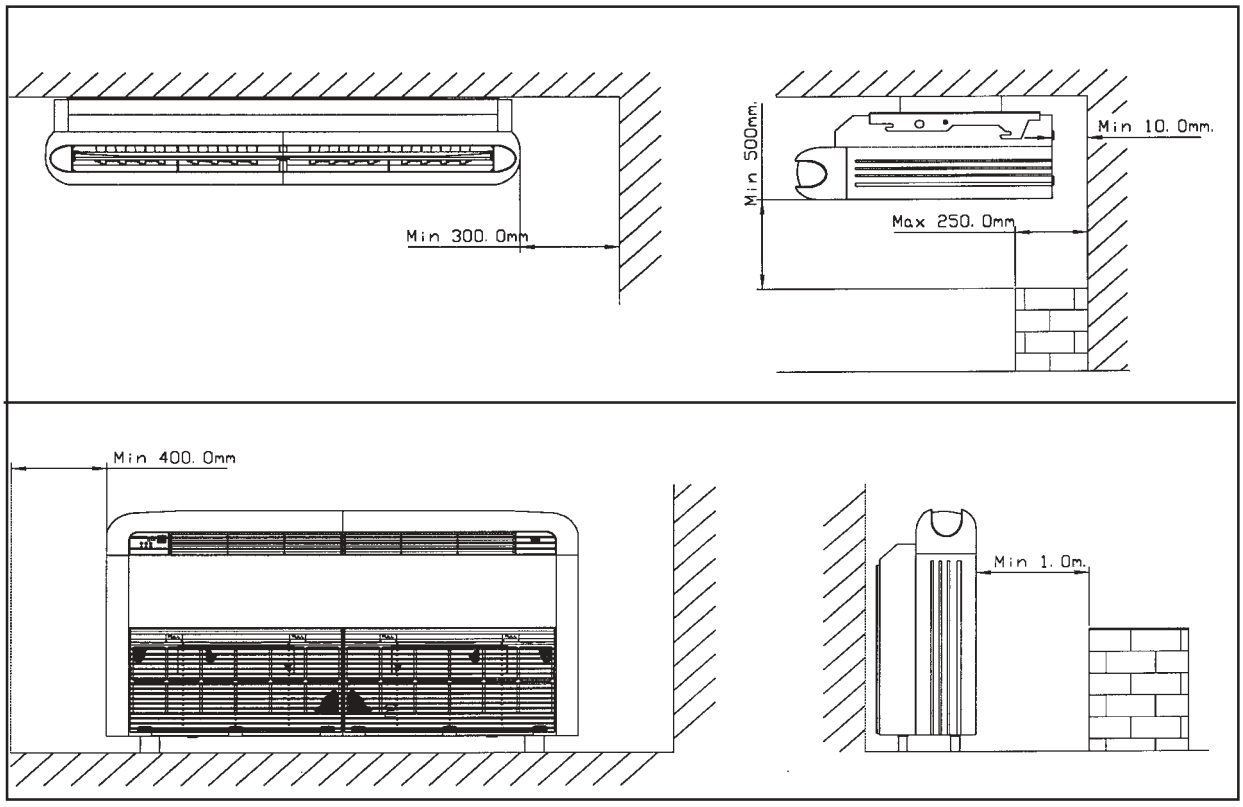
Please ensure that the following steps are taken :

- Check the gradient for drainage flow as recommended in Figure B.
- Provide clearance for easy servicing and optimal air flow as shown in Figure C.
- The indoor unit must be installed such that there is no short circuit of the cool discharge air with the warm return air.
- Do not install the indoor unit where there is direct sunlight shining on the unit. The location should be suitable for piping and drainage installation. The unit must be a large distance away from the door.

Semi-enclosed Mounting

- In case the unit is to be half recessed into false ceiling, please check the unit is well align.

MCM-D



MCM 062C

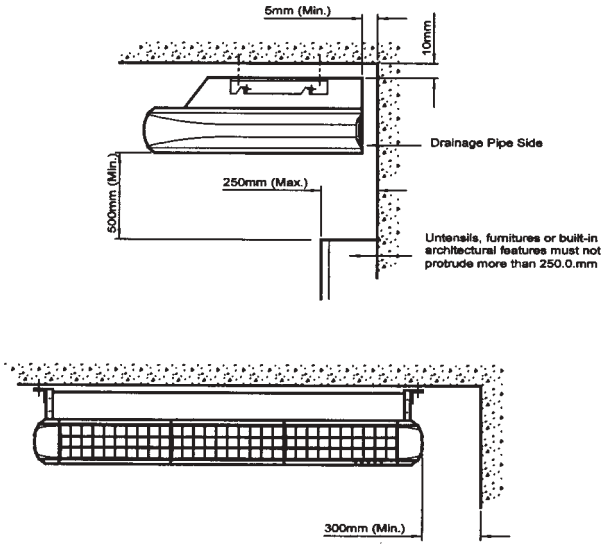
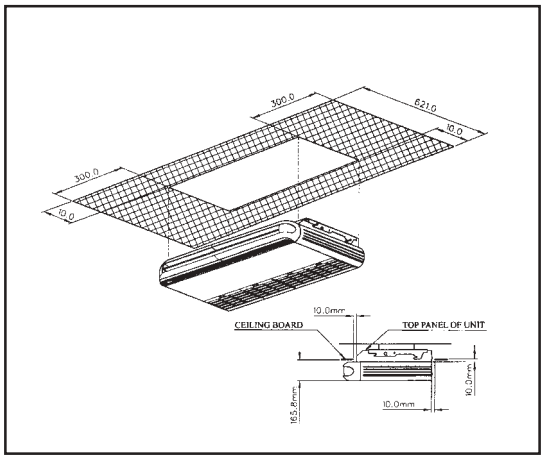


Figure C

- Provide the installation space as shown in Figure D.

MCM-D



MCM 062C

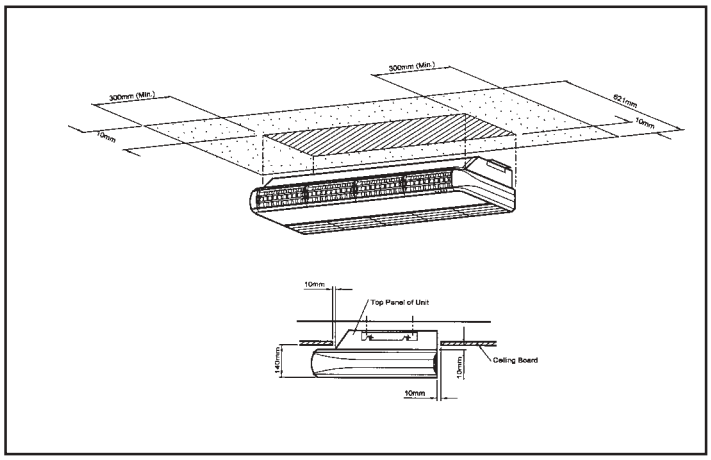


Figure D

Installation - Ceiling Exposed Type

STEP 1
Remove air intake grille, side panel, side close-up and hanger bracket from the unit; see Fig E.

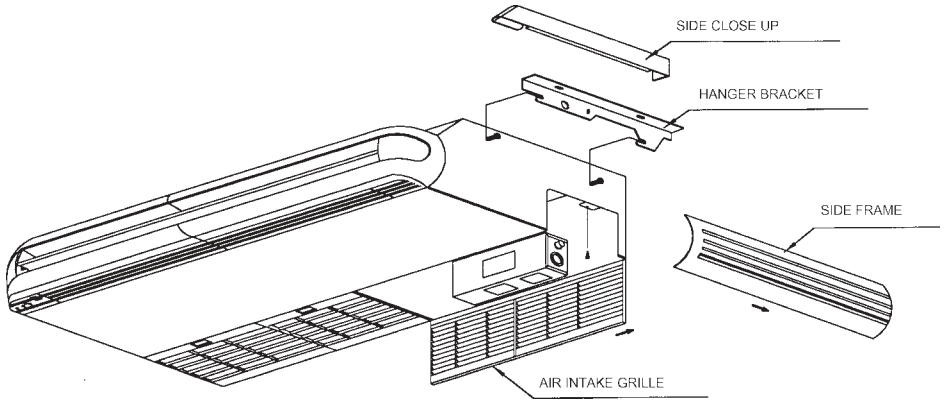


Figure E

STEP 2
Position the hanger rods as per Fig B and install the hanger bracket; see Fig F.

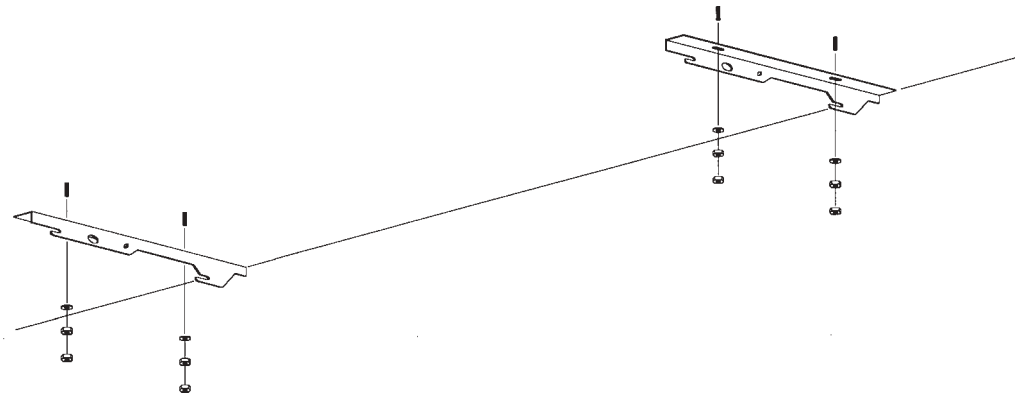


Figure F

STEP 3
Hanger up the unit and tighten the bolt, after completed the piping and drain pipe; install back the grille and panel Fig. G.

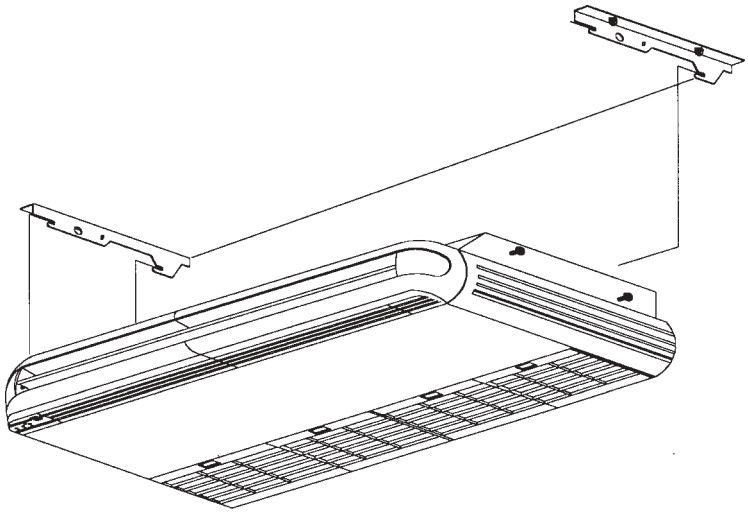


Figure G

Installation - Floor Standing Type

STEP 1
Remove air intake grille, side panel, side close-up and side panel from the unit; see Fig E.

STEP 2
Position the floor support (field supply) as per Fig B. install the unit; see Fig I.

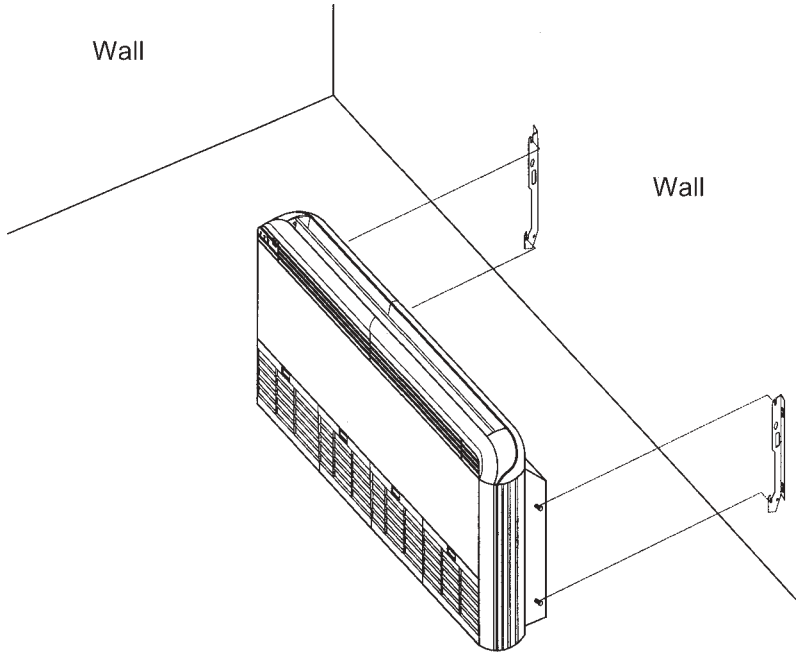


Figure I

STEP 3
Two types of piping and drain pipe connection as Fig J.

PIPING AND DRAIN PIPE INSTALLATION

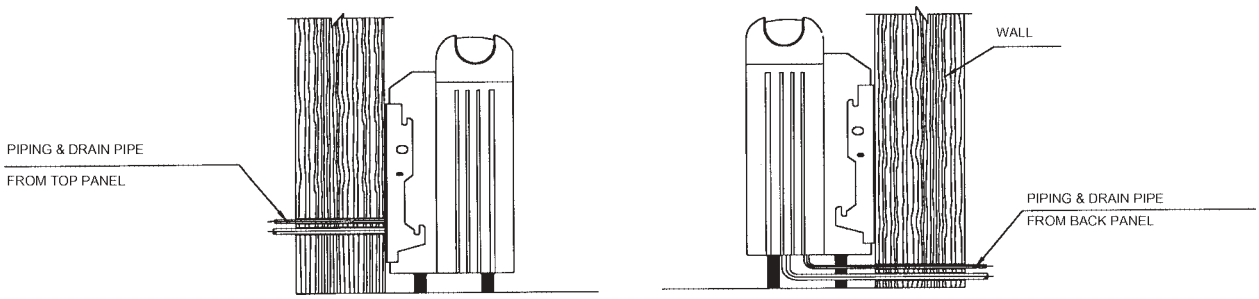
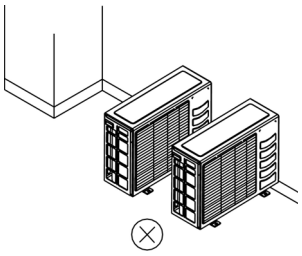


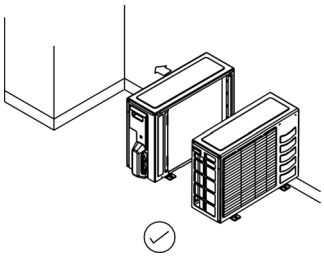
Figure J

(2) Installation Of Outdoor Unit

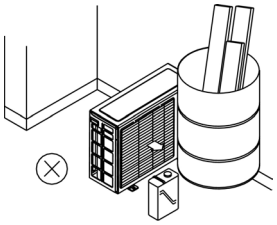
As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected for outdoor unit should fulfill the following requirements :

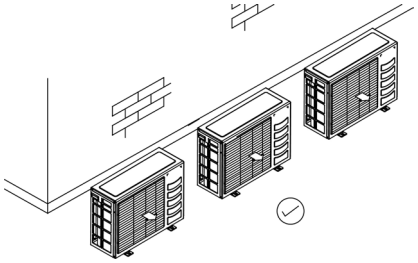
- Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



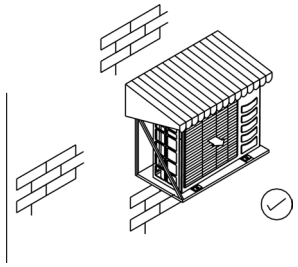


- Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacles which block air intake or discharge.





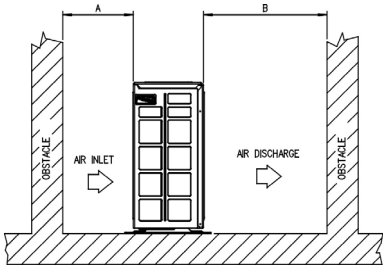
- The location must be well ventilated, so that the unit can draw in and distribute plenty of air thus lowering the condensing temperature.
- A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
- A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.

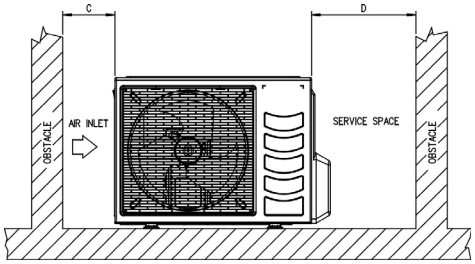


- The location must not be susceptible to dust or oil mist.

INSTALLATION CLEARANCE

- Outdoor units must be installed such that there is no short circuit of the hot discharge air or obstruction to smooth air flow. Select the coolest possible place where intake air should not be hotter than the outside temperature (max. 45°C)





ALL MODELS	A	B	C	D
Minimum Distance	300 mm	1000 mm	300 mm	500 mm

CAUTION : If the condensing unit is operated in an atmosphere containing oils(including machine oils), salt(coastal area), sulphide gas(near hot spring, oil refinery plant), such substances may lead to failure of the unit.

(3) Refrigerant Piping

Maximum Pipe Length and Maximum Number of Bends

- When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the font compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:

MODEL	Indoor	MCM 020D/DR	MCM 025D/DR	MCM 030D/DR	
	Outdoor	MLC 018C MLC / M4LC 020B/BR MLC 020C/CR	MLC / M4LC 025B/BR MLC 025C/CR	MLC 028C/CR	MLC / M4LC 030C/CR
Max. Length, m		15	15	15	45
Max. Elevation, m		8	8	8	25
Max. No. of Bends		10	10	10	10

MODEL	Indoor	MCM / R5CM 040D/DR		MCM / M5CM 050D/DR	MCM / M5CM 062C/CR
	Outdoor	MLC / M4LC / M5LC 035C/CR	MLC / M4LC / M5LC 040C/CR	MLC / M4LC / M5LC 050C/CR	MLC / M4LC / M5LC 061C/CR
Max. Length, m		45	45	45	35
Max. Elevation, m		25	25	25	20
Max. No. of Bends		10	10	10	10

Piping Sizes (Flare Connection Type)

Piping sizes are as follows:

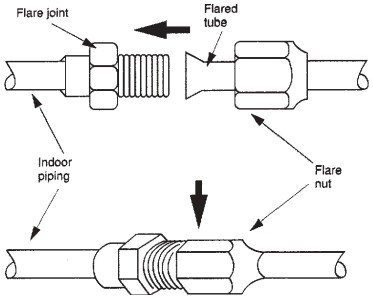
Model	MLC / M4LC 020B/BR MLC 018C / 020C/CR	MLC / M4LC 025B/BR MLC 025C/CR	MLC 028C/CR
Liquid (mm/in)	6.35 / ¼	9.52 / 3/8	9.52 / 3/8
Suction (mm/in)	15.88 / 5/8	15.88 / 5/8	15.88 / 5/8

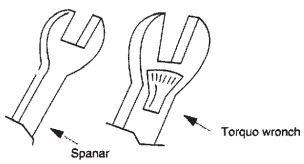
Model	MLC / M4LC 030C/CR M5LC 035/ 040C/CR	MLC 035C/CR	MLC / M4LC 040/050C/CR M5LC 050/061C/CR	MLC 061C/CR
Liquid (mm/in)	9.52 / 3/8	9.52 / 3/8	9.52 / 3/8	12.7 / ½
Suction (mm/in)	15.88 / 5/8	19.05 / ¾	19.05 / ¾	19.05 / ¾

PIPING CONNECTION TO THE UNITS

- Align the center of the piping and tighten the flare nut sufficiently with fingers.
- Finally tighten the flare nut with torque wrench unit the wrench clicks.
- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.

Pipe Size (mm/in)	Torque (Nm)
6.35 (1/4)	18
9.52 (3/8)	42
12.70 (1/2)	55
15.88 (5/8)	65
19.05 (3/4)	78





4) Wiring

ELECTRICAL CONNECTIONS

- Wiring regulations on wire diameters differ from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installations comply with the rules and regulations.

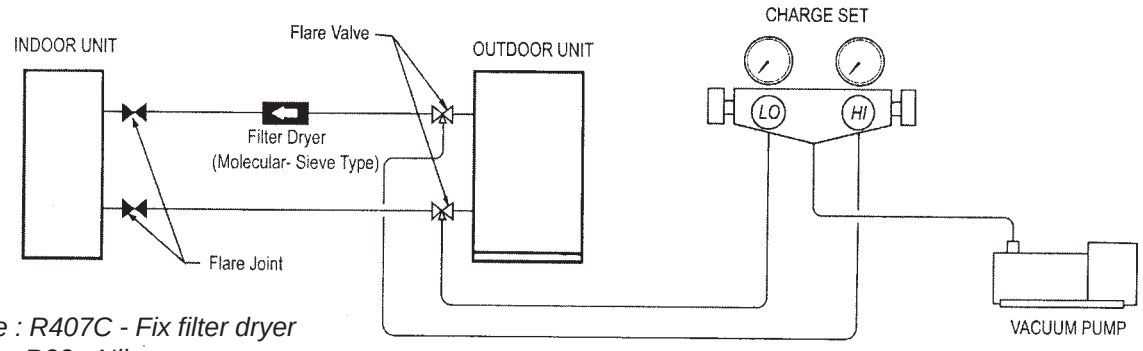
GENERAL PRECAUTIONS

- Ensure that the rated voltage of the unit corresponds to the name plate before carrying out proper wiring according to the wiring diagram.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnects and a circuit breaker for over-current protection should be provided in the exclusive line.
- The unit must be **GROUNDED** to prevent possible hazards due to insulation failures.
- All wiring must be firmly connected.
- All wiring must not touch the hot refrigerant piping, compressor or any moving parts of fan motors.

(5) Vacuuming and Charging

The pre-charged outdoor unit does not need any vacuuming or charging. However once it is connected, the connecting pipe line and the indoor unit need to be vacuumed before releasing the R22/R407C/R410A from the outdoor unit.

1. Open the service port core cap.
2. Connect pressure gauge to the service port.
3. Connect the line to vacuum pump. Open the charging manifold valve and turn the pump on. Vacuum to -0.1 MPa (-760mmHg) or lower. (Evacuation time varies by the pump but averagely in 1 hour).



Note : R407C - Fix filter dryer
R22 - Nil
R410A - Nil

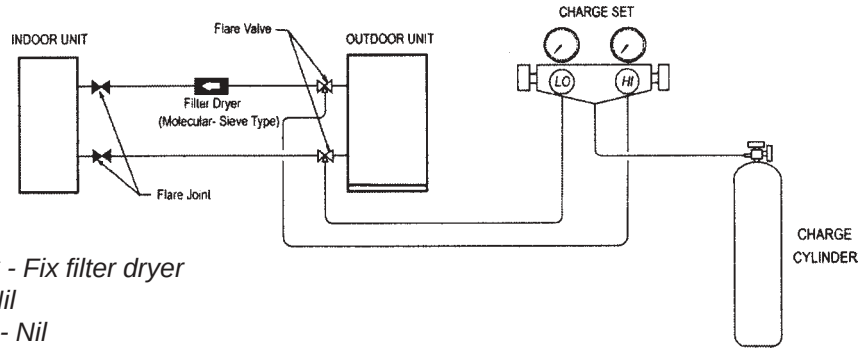
(6) Additional Charge

- The refrigerant charge has already charged into the outdoor unit. For the piping length of 7.6m, additional refrigerant charge after vacuuming is not necessary.
- When the piping length is more than 7.6m, please use the table below (unit in gram).

Model	10m	15m	20m	35m	45m
20D/DR	75 / 125	150 / 250	-	-	-
25D/DR	190 / 250	380 / 500	-	-	-
30D/DR	250	500	750	1500	2000
40D/DR	250	500	750	1500	2000
50D/DR	250	500	750	1500	2000
62C/CR	550	1100	1650	3300	-

The additional refrigerant charge amount recommended is a guideline for longer piping application. The actual charge required may be different from the guideline due to different application and variation in site conditions.

Diagram shows typical charging method.



Note : R407C - Fix filter dryer
R22 - Nil
R410A - Nil

Special Precaution When Dealing with Refrigerant R407C Unit

(1) What is New Refrigerant R407C?

R407C is a zeotropic refrigerant mixture which has Zero Ozone Depletion Potential (ODP = 0) and thus, conforms to the Montreal Protocol regulation. It requires Polyol-ester (POE) oil for its compressor's lubricant. Its refrigerant capacity and performance are about the same as the refrigerant R22.

(2) Components

Mixture of composition by weight: R32(23%), R125(25%), R134a(52%)

(3) Characteristic

- R407C liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when a leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to a leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R407C.
- When refrigerant R407C is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R407C is being charged into the system.
- POE oil is used as a lubricant for R407C compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken to avoid exposing the R407C system to moist air.

(4) Check List before Installation / Servicing

- Tubing
  Refrigerant R407C is more easily affected by dust of moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation.
- Compressor oil
  No additional charge of compressor oil is permitted.
- Refrigerant
  No other refrigerant other that R407C
- Tools
  Tools specifically for R407C only (must not be used for R22 or other refrigerant)
  i) Gauge manifold and charging hose
  ii) Gas leak detector
  iii) Refrigerant cylinder / charging cylinder
  iv) Vacuum pump c/w adapter
  v) Flare tools
  vi) Refrigerant recovery machine

(5) Handling and Installation Guidelines

Like R22 systems, the handling and installation of R407C systems are closely similar. All precautionary measures; such as ensuring no moisture, not dirt or chips in the system, clean brazing using nitrogen, and through leak check and vacuuming are equally important requirements. However, due to the zeotropic nature of R407C and its hydroscopic POE oil, additional precautions must be taken to ensure optimum and trouble-free system operation.

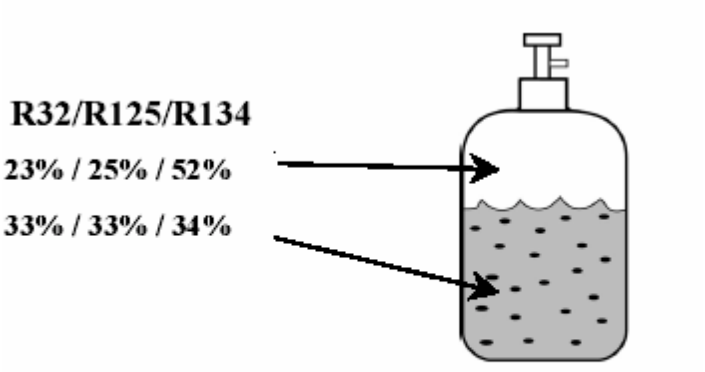
(a) Filte4r-dryer must be installed along the liquid line for all R407C air conditioners. This is to minimize the contamination of moisture and dirt in the refrigerant system. Filter-dryer must be of molecular sieve type. For a heat-pump system, install a two-way flow filter dryer along the liquid line.

(b) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

(c) Ensure that the compressor is not exposed to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Remove the seal-plug only when the compressor is about to be brazed.

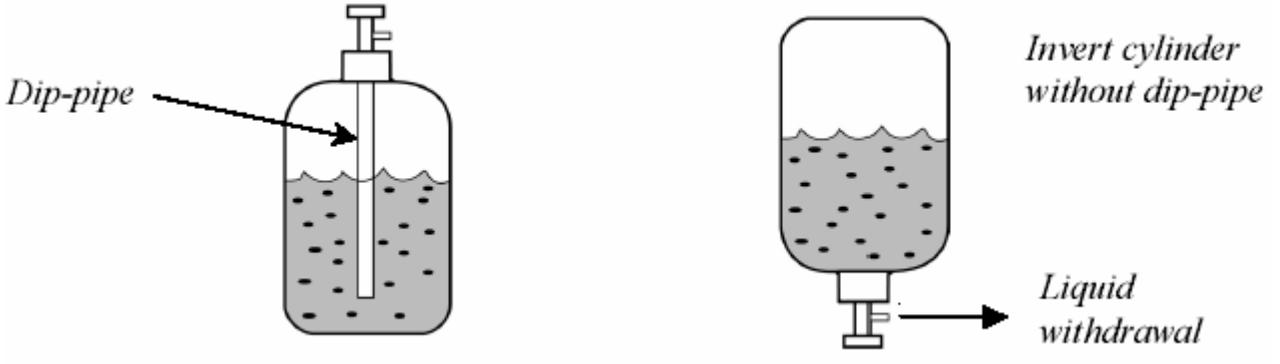
(d) The system should be thoroughly vacuumed to 1.0 Pa (-700mmHg) or lower. This vacuuming level is more stringent then R22 system so as to ensure no incompressible gas and moisture in the system.

(e) When charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R407C is being delivered into the system. The liquid composition can be different from the vapour composition.



Composition of R407C in vapour phase is different from liquid phase.

(f) Normally, the R407C cylinder or can is being equipped with a dip-pipe for liquid withdrawal. However, if the dip-pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.



(g) When servicing leaks, the top-up method, commonly practiced for R22 system, is not recommended for R407C systems. Unlike R22 where the refrigerant is of a single component the composition of R407C (which is made-up of three different components) may have changed during the leak. Consequently, a top-up may not ensure that the R407C in the system is of the original composition. This composition shift may adversely affect the system performance. It is recommended that the system by evacuated thoroughly before recharging with R407C.

Special Precautions When Dealing with Refrigerant R410A Unit

1) What is New Refrigerant R410A?
R410A is a new HFC refrigerant which does not damage the ozone layer. The working pressure of this new refrigerant is 1.6 times higher than conventional refrigerant (R22), thus proper installation / servicing is essential.

2) Components
Mixture of composition by weight : R32(50%) and R125(50%)

3) Characteristic
- R410A liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to leaked system. It is recommended that the system be evacuated thoroughly before recharging with R410A.
- When refrigerant R410A is used, the composition will differ depending on whether it is in gaseous or liquid phase.
  Hence when charging R410A, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R410A is being charged into the system.
- POE oil is used as lubricant for R410A compressor, which is different from the mineral oil used for R22 compressor.
  Extra precaution must be taken to avoid exposing the R410A system to moist air.

4) Check List before Installation / Servicing
- Tubing
  Refrigerant R410A is more easily affected by dust or moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation
- Compressor oil
  No additional charge of compressor oil is permitted.
- Refrigerant
  No other refrigerant other that R410A
- Tools (size of service port is different from R22 system)
  Tools specifically for R410A only (must not be used for R22 or other refrigerant)
  i) Gauge manifold and charging hose
  ii) Gas leak detector
  iii) Refrigerant cylinder/charging cylinder
  iv) Vacuum pump c/w adapter
  v) Flare tools
  vi) Refrigerant recovery machine

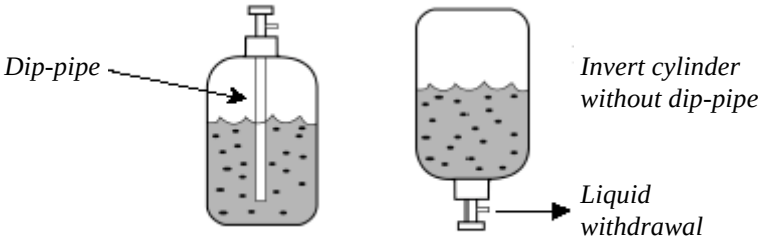
5) Handling and Installation Guidelines
Like R22 systems, the handling and installation of R410A system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to its hydroscopic POE oil, additional precautions must be taken to ensure optimum and trouble-free system operation.

a) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

b) Ensure that the compressor is not expose to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Removed the seal-plugs only when the compressor is about to be brazed.

c) The system should be thoroughly vacuumed to 1.0 Pa (700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.

d) When charging R410A, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R410A is being delivered into the system. The liquid composition can be different from the vapor composition.



e) Normally, the R410A cylinder or can is being equipped with a dip-pipe for liquid withdrawal. However, if the dip-pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.

(6) Overall Checking

- Ensure the following, in particular:
  1. The unit is mounted solidly and rigid in position.
  2. Piping and connections are leak proof after charging.
  3. Proper wiring has been done.
- Drainage check – pour some water into drain pan.
- Test run
  1. Conduct a test run after water drainage test and gas leakage test.
  2. Watch out for the following:
     (a) Is the electric plug firmly inserted into the socket?
     (b) Is there any abnormal sound from the unit?
     (c) Is there any abnormal vibration with regard to the unit itself or piping?
     (d) Is there smooth drainage of water?
- Check that:
  1. Outdoor fan is running, with warm air blowing off the outdoor unit (cooling cycle).
  2. Indoor blower is running and discharge cool air (cooling cycle).
  3. Suction (low side) pressure is as per recommendations.
  4. The remote controller has incorporated a 3 minutes delay in the circuit. Thus, it requires about 3 minutes before the outdoor unit can start up.

(7) Standard Operating Condition

Cooling only Unit

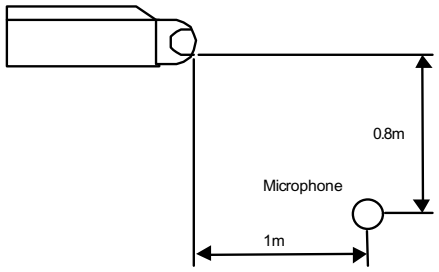
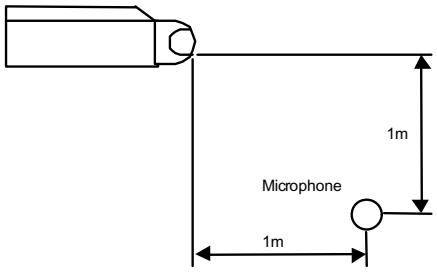
Temperature	T_s C / F	T_h C / F
Minimum Indoor Temperature	19.4 / 66.9	13.9 / 57.0
Maximum Indoor Temperature	26.7 / 80.1	19.4 / 66.9
Minimum Outdoor Temperature	19.4 / 66.9	13.9 / 57.0
Maximum Outdoor Temperature	46 / 114.8	24 / 75.2

Heat Pump Unit

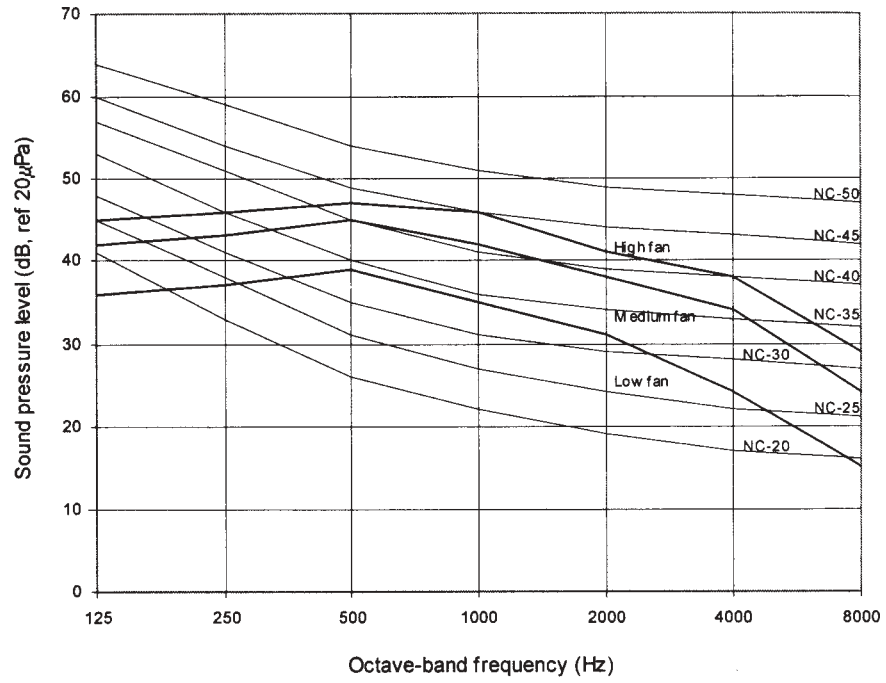
Temperature	T_s C / F	T_h C / F
Minimum Indoor Temperature	10 / 50	-
Maximum Indoor Temperature	26.7 / 80.1	-
Minimum Outdoor Temperature	-8 / 17.6	-9 / 15.8
Maximum Outdoor Temperature	24 / 75.2	18 / 64.4

Sound Data

Model	Speed	1/1 Octave A-weighted Sound Pressure (dBA), ref 20μPa							Overall	Noise
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	A(dBA)	Criteria
MCM 020D/DR	High	45	46	47	46	41	38	29	50	45
	Medium	42	43	45	42	38	34	24	47	41
	Low	36	37	39	35	31	24	15	40	34
MCM 025D/DR	High	48	51	51	50	45	41	33	54	49
	Medium	47	50	50	49	44	40	32	53	48
	Low	45	47	48	47	41	36	27	50	46
MCM 030D/DR	High	45	48	48	47	43	33	24	51	46
	Medium	44	47	47	46	42	32	23	50	45
	Low	43	45	45	44	39	29	20	48	43
MCM 040D/DR	High	51	53	51	50	47	37	30	54	49
	Medium	48	51	50	49	46	36	28	53	48
	Low	46	50	49	48	44	35	27	52	47
MCM 050D/DR	High	51	53	51	50	47	37	30	54	49
	Medium	48	51	50	49	46	36	28	53	48
	Low	46	50	49	48	44	35	27	52	47
MCM 062C/CR	High	34	45	49	52	49	44	37	56	51
	Medium	32	43	46	49	46	41	33	53	48
	Low	26	36	40	42	38	32	24	46	41

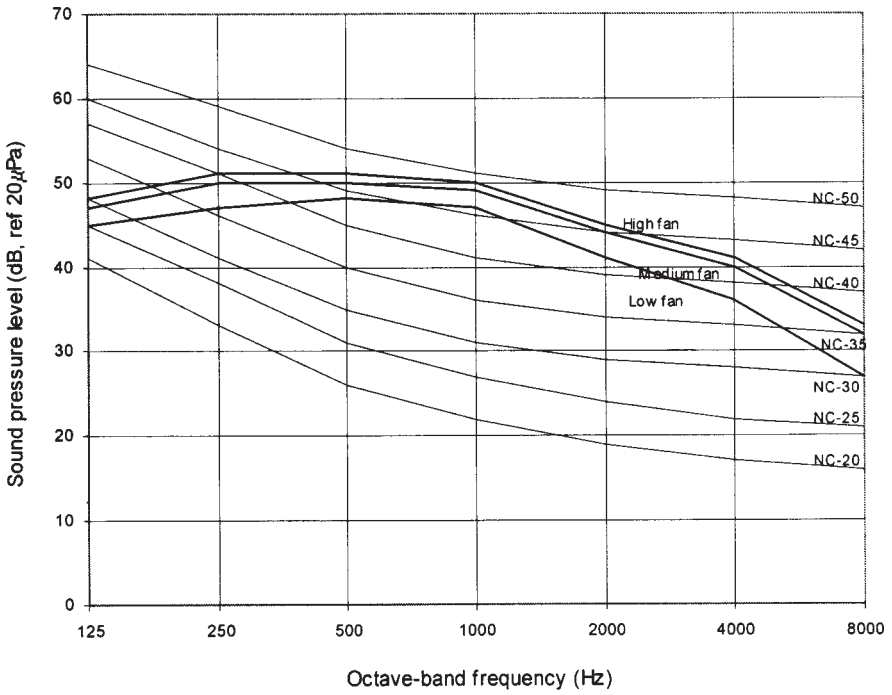
Model	Measuring location
MCM 020D/DR MCM 025D/DR	 Standard : JIS C 9612
MCM 030D/DR MCM 040D/DR MCM 050D/DR MCM 062C/CR	 Standard : JIS B 8615

MCM 020D/DR NC CURVES



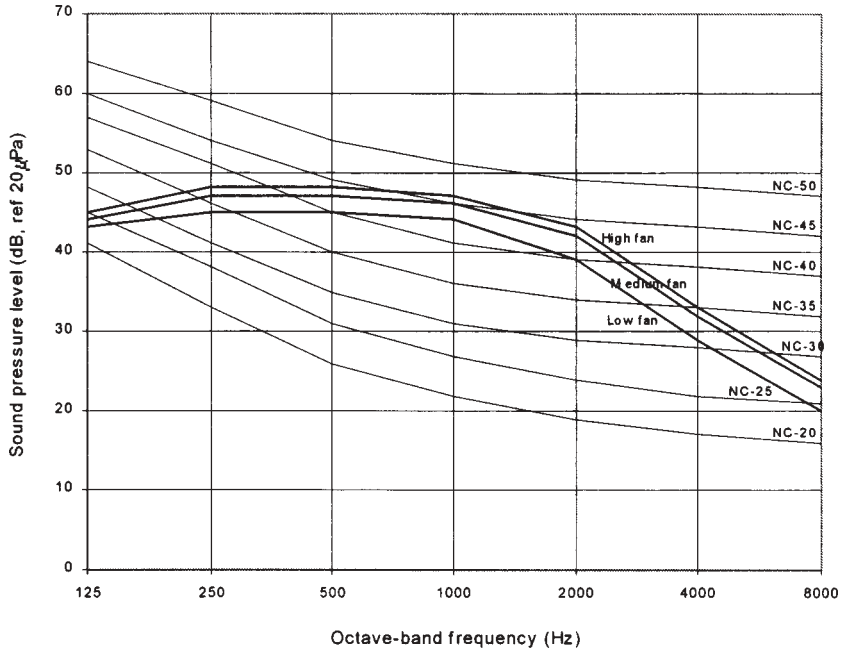
Measured in anechoic room at 1m in front of the unit and 0.8m below the air discharge opening

MCM 025D/DR NC CURVES



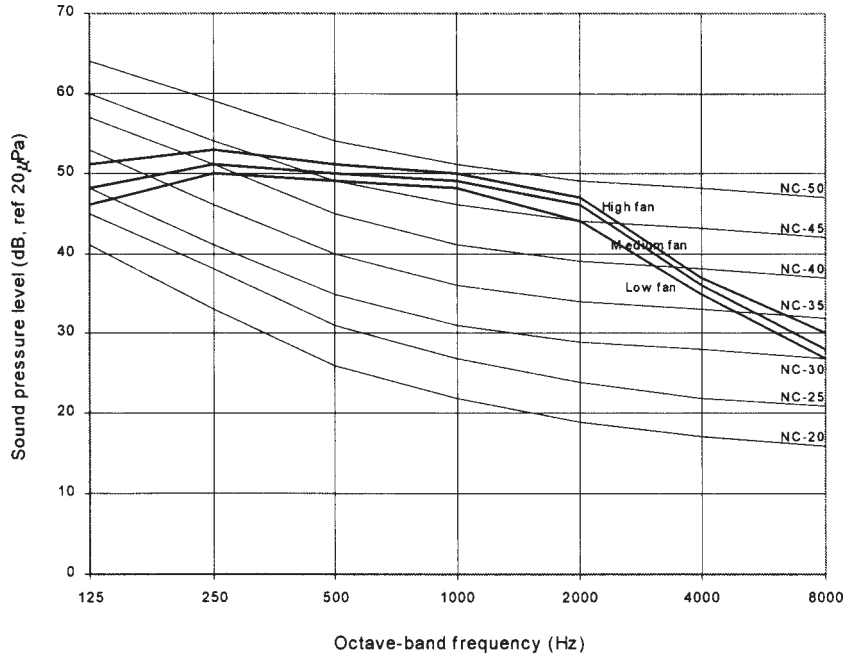
Measured in anechoic room at 1m in front of the unit and 0.8m below the air discharge opening

MCM30D/DR NC CURVES



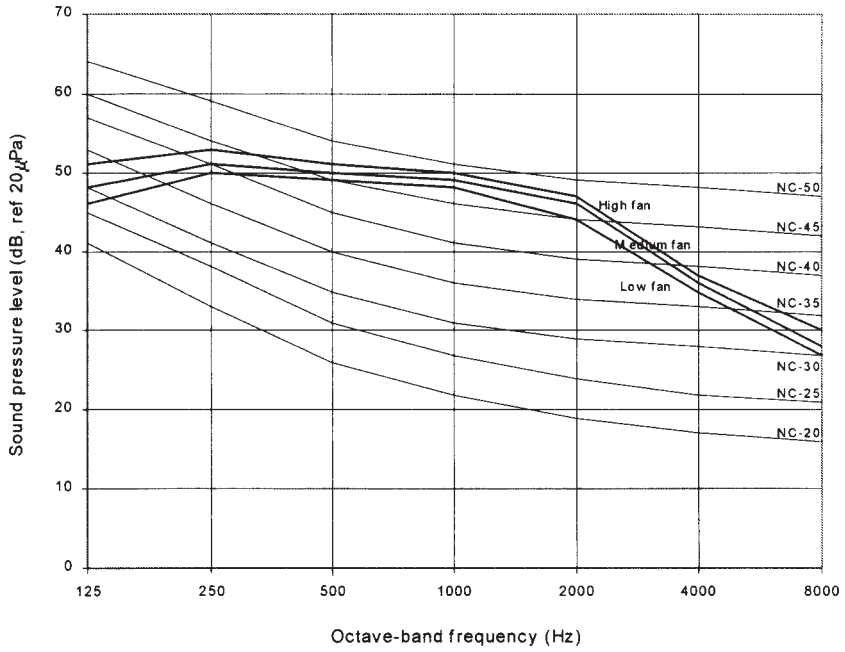
Measured in anechoic room at 1m in front of the unit and 1m below the air discharge opening

MCM 040D/DR NC CURVES



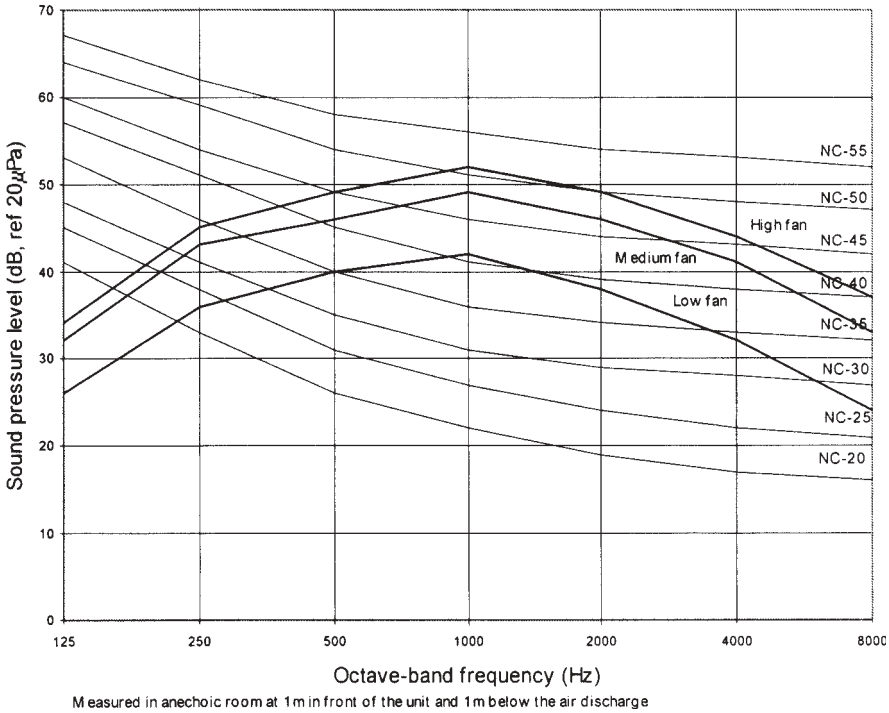
Measured in anechoic room at 1m in front of the unit and 1m below the air discharge opening

MCM 050D/DR NC CURVES



Measured in anechoic room at 1m in front of the unit and 1m below the air discharge opening

MCM 062C/CR NC CURVES



Measured in anechoic room at 1m in front of the unit and 1m below the air discharge

Engineering and Physical Data

General Data - Cooling Only (R22)

MODEL		INDOOR UNIT			MCM 020D	
		OUTDOOR UNIT			MLC 018C	MLC 020C
NOMINAL CAPACITY				Btu/h	18000	19000
				W	5280	5570
NOMINAL TOTAL INPUT POWER				W	1860	1849
NOMINAL RUNNING CURRENT				A	8.4	8.1
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER				W/W	2.84	3.01
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	264 / 560	
		MEDIUM		l/s / CFM	241 / 510	
		LOW		l/s / CFM	189 / 400	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	50 / 47 / 40	
	UNIT DIMENSION	HEIGHT		mm/in	214 / 8.4	
		WIDTH		mm/in	1214 / 47.8	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	301 / 11.9	
		WIDTH		mm/in	1311 / 51.6	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	43 / 95	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	614 / 1300	
	SOUND PRESSURE LEVEL			dBA	51	
	UNIT DIMENSION	HEIGHT		mm/in	648 / 25.5	
		WIDTH		mm/in	855 / 33.7	
		DEPTH		mm/in	328 / 12.9	
	PACKING DIMENSION	HEIGHT		mm/in	710 / 28.0	
		WIDTH		mm/in	990 / 39.0	
		DEPTH		mm/in	415 / 16.3	
	UNIT WEIGHT			kg/lb	58 / 128	59 / 130
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.4 / 1/4	
			GAS	mm/in	15.9 / 5/8	
REFRIGERANT CHARGE				kg/lb	0.85 / 1.87	1.35 / 2.98

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R22)

MODEL		INDOOR UNIT			MCM 025D
		OUTDOOR UNIT			MLC 025C
NOMINAL CAPACITY				Btu/h	23500
				W	6890
NOMINAL TOTAL INPUT POWER				W	2574
NOMINAL RUNNING CURRENT				A	12.1
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.67
REFRIGERANT TYPE					R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	297 / 630
		MEDIUM		l/s / CFM	274 / 580
		LOW		l/s / CFM	245 / 500
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	54 / 53 / 50
	UNIT DIMENSION	HEIGHT		mm/in	214 / 8.4
		WIDTH		mm/in	1214 / 47.8
		DEPTH		mm/in	670 / 26.3
	PACKING DIMENSION	HEIGHT		mm/in	301 / 11.9
		WIDTH		mm/in	1311 / 51.6
		DEPTH		mm/in	760 / 29.9
	UNIT WEIGHT			kg/lb	43 / 95
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	755 / 1600
	SOUND PRESSURE LEVEL			dBA	52
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5
		WIDTH		mm/in	855 / 33.7
		DEPTH		mm/in	328 / 12.9
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9
		WIDTH		mm/in	990 / 39.0
		DEPTH		mm/in	415 / 16.3
	UNIT WEIGHT			kg/lb	62 / 137
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.50 / 3.31

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R22)

MODEL		INDOOR UNIT			MCM 030D	
		OUTDOOR UNIT			MLC 028C	MLC 030C
NOMINAL CAPACITY - 1Ø / <3Ø>				Btu/h	26500	29000 / <29000>
				W	7770	8490 / <8490>
NOMINAL TOTAL INPUT POWER - 1Ø / <3Ø>				W	2894	2600 / <2660>
NOMINAL RUNNING CURRENT - 1Ø / <3Ø>				A	14.3	12.1 / <3.8>
POWER SOURCE - 1Ø / <3Ø>				V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.68	3.27 / <3.23>
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					INDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	326 / 690	
		MEDIUM		l/s / CFM	297 / 630	
		LOW		l/s / CFM	255 / 540	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	51 / 50 / 48	
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	
		WIDTH		mm/in	1214 / 47.8	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	
		WIDTH		mm/in	1361 / 53.5	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	45 / 99	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	741 / 1570	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.46
		WIDTH		mm/in	855 / 33.7	1030 / 40.55
		DEPTH		mm/in	328 / 12.9	400 / 15.75
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.37
		WIDTH		mm/in	990 / 39.0	1200 / 47.24
		DEPTH		mm/in	415 / 16.3	560 / 22.05
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.40 / 3.09	1.60 / 3.53

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R22)

MODEL		INDOOR UNIT			MCM 040D	
		OUTDOOR UNIT			MLC 035C	MLC 040C
NOMINAL CAPACITY - 1Ø / <3Ø>				Btu/h	34000	39000 / <39000>
				W	9960	11420 / <11420>
NOMINAL TOTAL INPUT POWER - 1Ø / <3Ø>				W	3120	3250 / <3220>
NOMINAL RUNNING CURRENT - 1Ø / <3Ø>				A	15.2	17.4 / <5.7>
POWER SOURCE - 1Ø / <3Ø>				V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	3.19	3.51 / <3.55>
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					INDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	477 / 1010	
		MEDIUM		l/s / CFM	420 / 890	
		LOW		l/s / CFM	368 / 780	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	54 / 53 / 52	
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	
		WIDTH		mm/in	1714 / 67.4	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	
		WIDTH		mm/in	1816 / 71.4	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	70 / 154	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	1605 / 3400	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	58	58
	UNIT DIMENSION	HEIGHT		mm/in	850 / 33.5	
		WIDTH		mm/in	1030 / 40.6	
		DEPTH		mm/in	400 / 15.8	
	PACKING DIMENSION	HEIGHT		mm/in	1000 / 39.4	
		WIDTH		mm/in	1200 / 47.2	
		DEPTH		mm/in	560 / 22.1	
	UNIT WEIGHT			kg/lb	95 / 209	100 / 221
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	
			GAS	mm/in	19.1 / 3/4	
REFRIGERANT CHARGE				kg/lb	2.00 / 4.41	2.40 / 5.29

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R22)

MODEL		INDOOR UNIT			MCM 050D	MCM 062C
		OUTDOOR UNIT			MLC 050C	MLC 061C
NOMINAL CAPACITY				Btu/h	49000	56000
				W	14350	16410
NOMINAL TOTAL INPUT POWER				W	4590	5593
NOMINAL RUNNING CURRENT				A	8.1	9.4
POWER SOURCE				V/Ph/Hz	380 - 415 / 3 / 50	380 - 415 / 3 / 50
EER				W/W	3.13	2.93
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					INDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	491 / 1040	731 / 1550
		MEDIUM		l/s / CFM	448 / 950	623 / 1320
		LOW		l/s / CFM	387 / 820	472 / 1000
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	54 / 53 / 52	56 / 53 / 46
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	285 / 11.2
		WIDTH		mm/in	1714 / 67.4	1903 / 74.9
		DEPTH		mm/in	670 / 26.3	680 / 26.8
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	368 / 14.5
		WIDTH		mm/in	1816 / 71.4	1984 / 78.1
		DEPTH		mm/in	760 / 29.9	760 / 29.9
	UNIT WEIGHT			kg/lb	70 / 154	85 / 187
	CONDENSATE DRAIN SIZE			mm/in	19.05 / 3/4	19.05 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	1605 / 3400	1793 / 3800
	SOUND PRESSURE LEVEL			dBA	58	61
	UNIT DIMENSION	HEIGHT		mm/in	850 / 33.5	850 / 33.5
		WIDTH		mm/in	1030 / 40.6	1030 / 40.6
		DEPTH		mm/in	400 / 15.8	460 / 18.1
	PACKING DIMENSION	HEIGHT		mm/in	1000 / 39.4	1016 / 40.0
		WIDTH		mm/in	1200 / 47.2	1178 / 46.4
		DEPTH		mm/in	560 / 22.1	602 / 23.7
	UNIT WEIGHT			kg/lb	105 / 232	108 / 238
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	12.7 / 1/2
			GAS	mm/in	19.1 / 3/4	19.1 / 3/4
REFRIGERANT CHARGE				kg/lb	2.80 / 6.17	5.00 / 11.02

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R22)

MODEL	INDOOR UNIT			MCM 020DR	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
NOMINAL COOLING CAPACITY			Btu/h	18000	19000
			W	5280	5570
NOMINAL HEATING CAPACITY			Btu/h	18500	19500
			W	5420	5720
NOMINAL TOTAL INPUT POWER (COOLING)			W	1860	1849
NOMINAL TOTAL INPUT POWER (HEATING)			W	1700	1799
NOMINAL RUNNING CURRENT (COOLING)			A	8.4	8.1
NOMINAL RUNNING CURRENT (HEATING)			A	7.6	7.9
POWER SOURCE			V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER			W/W	2.84	3.01
COP			W/W	3.19	3.18
REFRIGERANT TYPE				R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION		WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	264 / 560	
		MEDIUM	l/s / CFM	241 / 510	
		LOW	l/s / CFM	189 / 400	
	EXTERNAL STATIC PRESSURE (H/M/L)		mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	50 / 47 / 40	
	UNIT DIMENSION	HEIGHT	mm/in	214 / 8.42	
		WIDTH	mm/in	1214 / 47.8	
		DEPTH	mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT	mm/in	301 / 11.9	
		WIDTH	mm/in	1311 / 51.6	
		DEPTH	mm/in	760 / 29.9	
	UNIT WEIGHT		kg/lb	43 / 95	
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW		l/s / CFM	614 / 1300	
	SOUND PRESSURE LEVEL		dBA	51	
	UNIT DIMENSION	HEIGHT	mm/in	648 / 25.5	
		WIDTH	mm/in	855 / 33.7	
		DEPTH	mm/in	328 / 12.9	
	PACKING DIMENSION	HEIGHT	mm/in	710 / 28.0	
		WIDTH	mm/in	990 / 39.0	
		DEPTH	mm/in	415 / 16.3	
	UNIT WEIGHT		kg/lb	58 / 128	59 / 130
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	6.4 / 1/4	
		SIZE GAS	mm/in	15.9 / 5/8	
REFRIGERANT CHARGE			kg/lb	0.85 / 1.87	1.35 / 2.98

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R22)

MODEL		INDOOR UNIT		MCM 025DR
		OUTDOOR UNIT		MLC 025CR
NOMINAL COOLING CAPACITY			Btu/h	23500
			W	6890
NOMINAL HEATING CAPACITY			Btu/h	24000
			W	7030
NOMINAL TOTAL INPUT POWER (COOLING)			W	2574
NOMINAL TOTAL INPUT POWER (HEATING)			W	2494
NOMINAL RUNNING CURRENT (COOLING)			A	12.1
NOMINAL RUNNING CURRENT (HEATING)			A	11.7
POWER SOURCE			V/Ph/Hz	220 - 240 / 1 / 50
EER			W/W	2.67
COP			W/W	2.81
REFRIGERANT TYPE				R22
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)
		OPERATION		WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH	l/s / CFM	297 / 630
		MEDIUM	l/s / CFM	274 / 580
		LOW	l/s / CFM	245 / 520
	EXTERNAL STATIC PRESSURE (H/M/L)		mmAq	0
	SOUND PRESSURE LEVEL (H/M/L)		dBA	54 / 53 / 50
	UNIT DIMENSION	HEIGHT	mm/in	214 / 8.4
		WIDTH	mm/in	1214 / 47.8
		DEPTH	mm/in	670 / 26.3
	PACKING DIMENSION	HEIGHT	mm/in	301 / 11.9
		WIDTH	mm/in	1311 / 51.6
		DEPTH	mm/in	760 / 29.9
	UNIT WEIGHT		kg/lb	43 / 95
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW		l/s / CFM	755 / 1600
	SOUND PRESSURE LEVEL		dBA	52
	UNIT DIMENSION	HEIGHT	mm/in	750 / 29.5
		WIDTH	mm/in	855 / 33.7
		DEPTH	mm/in	328 / 12.9
	PACKING DIMENSION	HEIGHT	mm/in	810 / 31.9
		WIDTH	mm/in	990 / 39.0
		DEPTH	mm/in	415 / 16.3
	UNIT WEIGHT		kg/lb	62 / 137
	PIPE CONNECTION	TYPE		FLARE VALVE
		SIZE LIQUID	mm/in	9.5 / 3/8
		SIZE GAS	mm/in	15.9 / 5/8
REFRIGERANT CHARGE			kg/lb	1.50 / 3.31

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R22)

MODEL		INDOOR UNIT			MCM 030DR	
		OUTDOOR UNIT			MLC 028CR	MLC 030CR
NOMINAL COOLING CAPACITY - 1Ø / <3Ø>				Btu/h	26500	30000 / <30000>
				W	7770	8790 / <8790>
NOMINAL HEATING CAPACITY - 1Ø / <3Ø>				Btu/h	27000	32000 / <32000>
				W	7910	9380 / <9380>
NOMINAL TOTAL INPUT POWER (COOLING) -1Ø / <3Ø>				W	2894	2881 / <2861>
NOMINAL TOTAL INPUT POWER (HEATING) - 1Ø / <3Ø>				W	2674	2921 / <2901>
NOMINAL RUNNING CURRENT (COOLING) - 1Ø / <3Ø>				A	14.3	13.8 / <5.7>
NOMINAL RUNNING CURRENT (HEATING) - 1Ø / <3Ø>				A	13.6	14 / <5.9>
POWER SOURCE - 1Ø / <3Ø>				V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.68	3.02 / <3.07>
COP - 1Ø / <3Ø>				W/W	2.96	3.21 / <3.23>
REFRIGERANT TYPE					R22	R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	OUTDOOR CAP. TUBE + TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	326 / 690	
		MEDIUM		l/s / CFM	297 / 630	
		LOW		l/s / CFM	255 / 540	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	51 / 50 / 48	
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	
		WIDTH		mm/in	1214 / 47.8	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	
		WIDTH		mm/in	1361 / 53.5	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	45 / 99	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	741 / 1570	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.5
		WIDTH		mm/in	855 / 33.7	1030 / 40.6
		DEPTH		mm/in	328 / 12.9	400 / 15.8
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.4
		WIDTH		mm/in	990 / 39.0	1200 / 47.2
		DEPTH		mm/in	415 / 16.3	560 / 22.1
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	2.18 / 4.81	2.15 / 4.74

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R22)

MODEL		INDOOR UNIT			MCM 040DR	
		OUTDOOR UNIT			MLC 035CR	MLC 040CR
NOMINAL COOLING CAPACITY - 1Ø / <3Ø>				Btu/h	34000	39000 / <39000>
				W	9960	11420 / <11420>
NOMINAL HEATING CAPACITY - 1Ø / <3Ø>				Btu/h	35000	41000 / <41000>
				W	10260	12020 / <12020>
NOMINAL TOTAL INPUT POWER (COOLING) - 1Ø / <3Ø>				W	2980	3383 / <3353>
NOMINAL TOTAL INPUT POWER (HEATING) - 1Ø / <3Ø>				W	2980	3263 / <3233>
NOMINAL RUNNING CURRENT (COOLING) - 1Ø / <3Ø>				A	15.2	16.5 / <5.9>
NOMINAL RUNNING CURRENT (HEATING) - 1Ø / <3Ø>				A	15.2	15.9 / <5.3>
POWER SOURCE - 1Ø / <3Ø>				V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	3.34	3.38 / <3.41>
COP - 1Ø / <3Ø>				W/W	3.44	3.68 / <3.72>
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE + TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	477 / 1010	
		MEDIUM		l/s / CFM	420 / 890	
		LOW		l/s / CFM	368 / 780	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	54 / 53 / 52	
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	
		WIDTH		mm/in	1714 / 67.4	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	
		WIDTH		mm/in	1816 / 71.4	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	70 / 154	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	1605 / 3400	
	SOUND PRESSURE LEVEL			dBA	58	
	UNIT DIMENSION	HEIGHT		mm/in	850 / 33.5	
		WIDTH		mm/in	1030 / 40.6	
		DEPTH		mm/in	400 / 15.8	
	PACKING DIMENSION	HEIGHT		mm/in	1000 / 39.4	
		WIDTH		mm/in	1200 / 47.2	
		DEPTH		mm/in	560 / 22.1	
	UNIT WEIGHT			kg/lb	95 / 209	100 / 221
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	
			GAS	mm/in	19.1 / 3/4	
REFRIGERANT CHARGE				kg/lb	2.60 / 5.73	2.60 / 5.73

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R22)

MODEL					INDOOR UNIT		MCM 050DR	MCM 062CR
					OUTDOOR UNIT		MLC 050CR	MLC 061CR
NOMINAL COOLING CAPACITY						Btu/h	48000	56000
						W	14067	16410
NOMINAL HEATING CAPACITY						Btu/h	48000	56000
						W	14067	16410
NOMINAL TOTAL INPUT POWER (COOLING)						W	4491	5593
NOMINAL TOTAL INPUT POWER (HEATING)						W	4081	4551
NOMINAL RUNNING CURRENT (COOLING)						A	8.3	9.4
NOMINAL RUNNING CURRENT (HEATING)						A	6.2	8.1
POWER SOURCE						V/Ph/Hz	380 - 415 / 3 / 50	380 - 415 / 3 / 50
EER						W/W	3.13	2.93
COP						W/W	3.45	3.61
REFRIGERANT TYPE							R22	R22
REFRIGERANT CONTROL (EXPANSION DEVICE)							OUTDOOR CAP. TUBE + TXV	CAP. TUBE - INDOOR (COOLING) & OUTDOOR (HEATING)
INDOOR UNIT	CONTROL	AIR DISCHARGE					AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION					WIRELESSS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH				l/s / CFM	491 / 1040	731 / 1550
		MEDIUM				l/s / CFM	448 / 950	623 / 1320
		LOW				l/s / CFM	387 / 820	472 / 1000
	EXTERNAL STATIC PRESSURE (H/M/L)					mmAq	0	0
	SOUND PRESSURE LEVEL (H/M/L)					dBA	54 / 53 / 52	56 / 53 / 46
	UNIT DIMENSION	HEIGHT				mm/in	249 / 9.8	285 / 11.2
		WIDTH				mm/in	1714 / 67.4	1903 / 74.9
		DEPTH				mm/in	670 / 26.3	680 / 26.8
	PACKING DIMENSION	HEIGHT				mm/in	345 / 13.6	368 / 14.5
		WIDTH				mm/in	1816 / 71.4	1984 / 78.1
		DEPTH				mm/in	760 / 29.9	760 / 29.9
	UNIT WEIGHT					kg/lb	70 / 154	85 / 187
	CONDENSATE DRAIN SIZE					mm/in	19.1 / 3/4	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW					l/s / CFM	1605 / 3400	1793 / 3800
	SOUND PRESSURE LEVEL					dBA	58	61
	UNIT DIMENSION	HEIGHT				mm/in	850 / 33.5	850 / 33.5
		WIDTH				mm/in	1030 / 40.6	1030 / 40.6
		DEPTH				mm/in	400 / 15.8	460 / 18.1
	PACKING DIMENSION	HEIGHT				mm/in	1000 / 39.4	1016 / 40.0
		WIDTH				mm/in	1200 / 47.2	1178 / 46.4
		DEPTH				mm/in	560 / 22.1	602 / 23.7
	UNIT WEIGHT					kg/lb	105 / 231.5	108 / 238.1
	PIPE CONNECTION	TYPE					FLARE VALVE	
		SIZE	LIQUID			mm/in	9.5 / 3/8	12.7 / 1/2
			GAS			mm/in	19.1 / 3/4	19.1 / 3/4
REFRIGERANT CHARGE						kg/lb	2.75 / 6.06	5.00 / 11.02

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R410A)

MODEL	INDOOR UNIT			M5CM 040D	
	OUTDOOR UNIT			M5LC 035C	M5LC 040C
NOMINAL CAPACITY - 1Ø / <3Ø>			Btu/h	33000 / <33000>	38500 / <38500>
			W	9670 / <9670>	11280 / <11280>
NOMINAL TOTAL INPUT POWER - 1Ø / <3Ø>			W	3148 / <3048>	3954 / <3900>
NOMINAL RUNNING CURRENT - 1Ø / <3Ø>			A	15.7 / <5.5>	18.7 / <8.5>
POWER SOURCE - 1Ø / <3Ø>			V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>			W/W	3.07 / <3.17>	2.85 / <2.89>
REFRIGERANT TYPE				R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE & TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	477 / 1010	
		MEDIUM	l/s / CFM	420 / 890	
		LOW	l/s / CFM	368 / 780	
	EXTERNAL STATIC PRESSURE (H/M/L)		mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	54 / 53 / 52	
	UNIT DIMENSION	HEIGHT	mm/in	249 / 9.8	
		WIDTH	mm/in	1714 / 67.4	
		DEPTH	mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT	mm/in	345 / 13.6	
		WIDTH	mm/in	1816 / 71.4	
		DEPTH	mm/in	760 / 29.9	
	UNIT WEIGHT		kg/lb	70 / 154	
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW		l/s / CFM	1605 / 3400	
	SOUND PRESSURE LEVEL		dBA	58	
	UNIT DIMENSION	HEIGHT	mm/in	850 / 33.5	
		WIDTH	mm/in	1030 / 40.6	
		DEPTH	mm/in	400 / 15.8	
	PACKING DIMENSION	HEIGHT	mm/in	1000 / 39.4	
		WIDTH	mm/in	1200 / 47.2	
		DEPTH	mm/in	560 / 22.1	
	UNIT WEIGHT		kg/lb	95 / 209	100 / 221
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
		SIZE GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE			kg/lb	1.90 / 4.19	1.95 / 4.30

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Cooling Only (R410A)

MODEL	INDOOR UNIT			M5CM 050D	M5CM 062C
	OUTDOOR UNIT			M5LC 050C	M5LC 061C
NOMINAL CAPACITY			Btu/h	45500	55000
			W	13340	16120
NOMINAL TOTAL INPUT POWER			W	5020	6414
NOMINAL RUNNING CURRENT			A	8.8	9.6
POWER SOURCE			V/Ph/Hz	380 - 415 / 3 / 50	380 - 415 / 3 / 50
EER			W/W	2.66	2.51
REFRIGERANT TYPE				R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE & TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	491 / 1040	732 / 1550
		MEDIUM	l/s / CFM	448 / 950	623 / 1320
		LOW	l/s / CFM	387 / 820	472 / 1000
	EXTERNAL STATIC PRESSURE (H/M/L)		mmAq	0	0
	SOUND PRESSURE LEVEL (H/M/L)		dBA	54 / 53 / 52	56 / 53 / 46
	UNIT DIMENSION	HEIGHT	mm/in	249 / 9.8	285 / 11.2
		WIDTH	mm/in	1714 / 67.4	1903 / 74.9
		DEPTH	mm/in	670 / 26.3	680 / 26.8
	PACKING DIMENSION	HEIGHT	mm/in	345 / 13.6	368 / 14.5
		WIDTH	mm/in	1816 / 71.4	1984 / 78.1
		DEPTH	mm/in	760 / 29.9	760 / 29.9
	UNIT WEIGHT		kg/lb	70 / 154	85 / 187
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW		l/s / CFM	2171 / 4600	2171 / 4600
	SOUND PRESSURE LEVEL		dBA	58	61
	UNIT DIMENSION	HEIGHT	mm/in	850 / 33.5	850 / 33.5
		WIDTH	mm/in	1030 / 40.6	1030 / 40.6
		DEPTH	mm/in	400 / 15.8	460 / 18.1
	PACKING DIMENSION	HEIGHT	mm/in	1000 / 39.4	1016 / 40.0
		WIDTH	mm/in	1200 / 47.2	1178 / 46.4
		DEPTH	mm/in	560 / 22.1	602 / 23.7
	UNIT WEIGHT		kg/lb	105 / 232	108 / 238
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
		SIZE GAS	mm/in	15.9 / 5/8	19.1 / 3/4
REFRIGERANT CHARGE			kg/lb	3.35 / 7.39	3.40 / 7.50

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COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R410A)

MODEL		INDOOR UNIT			M5CM 040DR	
		OUTDOOR UNIT			M5LC 035CR	M5LC 040CR
NOMINAL COOLING CAPACITY - 1Ø / <3Ø>				Btu/h	33000 / <33000>	38500 / <38500>
				W	9670 / <9670>	11280 / <11280>
NOMINAL HEATING CAPACITY - 1Ø / <3Ø>				Btu/h	33000 / <33000>	39000 / <39000>
				W	9670 / <9670>	11430 / <11430>
NOMINAL TOTAL INPUT POWER (COOLING) - 1Ø / <3Ø>				W	3148 / <3048>	3954 / <3900>
NOMINAL TOTAL INPUT POWER (HEATING) - 1Ø / <3Ø>				W	2958 / <2848>	3470 / <3450>
NOMINAL RUNNING CURRENT (COOLING) - 1Ø / <3Ø>				A	15.7 / <5.5>	18.7 / <8.5>
NOMINAL RUNNING CURRENT (HEATING) - 1Ø / <3Ø>				A	14.7 / <6.4>	17.5 / <7.9>
POWER SOURCE - 1Ø / <3Ø>				V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	3.07 / <3.17>	2.85 / <2.89>
COP - 1Ø / <3Ø>				W/W	3.27 / <3.40>	3.29 / <3.31>
REFRIGERANT TYPE					R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE + TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	477 / 1010	
		MEDIUM		l/s / CFM	420 / 890	
		LOW		l/s / CFM	368 / 780	
	EXTERNAL STATIC PRESSURE (H/M/L)			mmAq	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	54 / 53 / 52	
	UNIT DIMENSION	HEIGHT		mm/in	249 / 9.8	
		WIDTH		mm/in	1714 / 67.4	
		DEPTH		mm/in	670 / 26.3	
	PACKING DIMENSION	HEIGHT		mm/in	345 / 13.6	
		WIDTH		mm/in	1816 / 71.4	
		DEPTH		mm/in	760 / 29.9	
	UNIT WEIGHT			kg/lb	70 / 154	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	1605 / 3400	
	SOUND PRESSURE LEVEL			dBA	58	
	UNIT DIMENSION	HEIGHT		mm/in	850 / 33.5	
		WIDTH		mm/in	1030 / 40.6	
		DEPTH		mm/in	400 / 15.8	
	PACKING DIMENSION	HEIGHT		mm/in	1000 / 39.4	
		WIDTH		mm/in	1200 / 47.2	
		DEPTH		mm/in	560 / 22.1	
	UNIT WEIGHT			kg/lb	95 / 209	100 / 221
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.90 / 4.19	1.95 / 4.30

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

General Data - Heat pump (R410A)

MODEL	INDOOR UNIT			M5CM 050DR	M5CM 062CR
	OUTDOOR UNIT			M5LC 050CR	M5LC 061CR
NOMINAL COOLING CAPACITY			Btu/h	45500	55000
			W	13340	16119
NOMINAL HEATING CAPACITY			Btu/h	48000	55000
			W	14070	16119
NOMINAL TOTAL INPUT POWER (COOLING)			W	5020	6414
NOMINAL TOTAL INPUT POWER (HEATING)			W	4720	6349
NOMINAL RUNNING CURRENT (COOLING)			A	8.8	9.6
NOMINAL RUNNING CURRENT (HEATING)			A	8.4	8.4
POWER SOURCE			V/Ph/Hz	380 - 415 / 3 / 50	380 - 415 / 3 / 50
EER			W/W	2.66	2.51
COP			W/W	2.98	2.54
REFRIGERANT TYPE				R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE & TXV	
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)	
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	491 / 1040	732 / 1550
		MEDIUM	l/s / CFM	448 / 950	623 / 1320
		LOW	l/s / CFM	387 / 820	472 / 1000
	EXTERNAL STATIC PRESSURE (H/M/L)		mmAq	0	0
	SOUND PRESSURE LEVEL (H/M/L)		dBA	54 / 53 / 52	56 / 53 / 46
	UNIT DIMENSION	HEIGHT	mm/in	249 / 9.8	285 / 11.2
		WIDTH	mm/in	1714 / 67.4	1903 / 74.9
		DEPTH	mm/in	670 / 26.3	680 / 26.8
	PACKING DIMENSION	HEIGHT	mm/in	345 / 13.6	368 / 14.5
		WIDTH	mm/in	1816 / 71.4	1984 / 78.1
		DEPTH	mm/in	760 / 29.9	760 / 29.9
	UNIT WEIGHT		kg/lb	70 / 154	85 / 187
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW		l/s / CFM	2171 / 4600	2171 / 4600
	SOUND PRESSURE LEVEL		dBA	58	61
	UNIT DIMENSION	HEIGHT	mm/in	850 / 33.5	850 / 33.5
		WIDTH	mm/in	1030 / 40.6	1030 / 40.6
		DEPTH	mm/in	400 / 15.8	460 / 18.1
	PACKING DIMENSION	HEIGHT	mm/in	1000 / 39.4	1016 / 40.0
		WIDTH	mm/in	1200 / 47.2	1178 / 46.4
		DEPTH	mm/in	560 / 22.1	602 / 23.7
	UNIT WEIGHT		kg/lb	105 / 232	108 / 238
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
		SIZE GAS	mm/in	15.9 / 5/8	19.1 / 3/4
REFRIGERANT CHARGE			kg/lb	3.35 / 7.39	3.40 / 7.49

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a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

Components Data (R22)

MODEL	INDOOR UNIT			MCM 020D	
	OUTDOOR UNIT			MLC 018C	MLC 020C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	
COMPRESSOR	TYPE			ROTARY	
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID	
	OIL AMOUNT		cm^3 / fl.oz.	670 / 23.6	
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.19 / 2.06	
		ROW		3	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (RAISE LANCE)	
		THICKNESS	mm/in	0.10 / 0.004	
		FACE AREA	m^2/ft^2	0.52 / 5.59	
		ROW		1	2
		FIN PER INCH		20	24
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	544 / 21.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	**INDOOR UNIT**			**MCM 025D**
	OUTDOOR UNIT			**MLC 025C**
INDOOR FAN	**TYPE**			CROSS FLOW
	QUANTITY			2
	MATERIAL			ABS
	DRIVE			DIRECT
	DIAMETER		**mm/in**	146 / 5.75
	LENGTH		**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**			INDUCTION
	QUANTITY			1
	INDEX OF PROTECTION (IP)			N/A
OUTDOOR FAN	**TYPE**			PROPELLER
	QUANTITY			1
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE			DIRECT
	DIAMETER		**mm/in**	457 / 18
OUTDOOR FAN MOTOR	**TYPE**			INDUCTION
	QUANTITY			1
	INDEX OF PROTECTION (IP)			IP54
COMPRESSOR	**TYPE**			ROTARY
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID
	OIL AMOUNT		**cm^3 / fl.oz.**	700 / 24.6
INDOOR COIL	**TUBE**	**MATERIAL**		SEAMLESS COPPER
		DIAMETER	**mm/in**	9.52 / 3/8
		THICKNESS	**mm/in**	0.30 / 0.012
	FIN	**MATERIAL**		ALUMINIUM (CORR. FIN)
		THICKNESS	**mm/in**	0.11 / 0.0043
		FACE AREA	**m^2/ft^2**	0.19 / 2.06
		ROW		3
		FIN PER INCH		12
OUTDOOR COIL	**TUBE**	**MATERIAL**		SEAMLESS INNER GROOVE COPPER
		DIAMETER	**mm/in**	7.00 / 0.276
		THICKNESS	**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**		ALUMINIUM (RAISE LANCE)
		THICKNESS	**mm/in**	0.10 / 0.004
		FACE AREA	**m^2/ft^2**	0.62 / 6.67
		ROW		2
		FIN PER INCH		18
AIR QUALITY	**FILTER**	**TYPE**		WASHABLE SARANET FILTER
		QUANTITY	**pc**	2
		SIZE **LENGTH**	**mm/in**	544 / 21.4
		SIZE **WIDTH**	**mm/in**	270 / 10.6
		SIZE **THICKNESS**	**mm/in**	3 / 0.11
CASING	**INDOOR UNIT**		**MATERIAL**	GALVANIZED MILD STEEL
			FINISHING	POLYESTER POWDER
			COLOUR	LIGHT GREY
	OUTDOOR UNIT		**MATERIAL**	GALVANIZED MILD STEEL
			FINISHING	POLYESTER POWDER
			COLOUR	LIGHT GREY

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 030D	
	OUTDOOR UNIT			MLC 028C	MLC 030C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			3	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	-
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			ATMOS M60 or SUNISO 4GDID	MINERAL (Sontex 200 LT)
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.24 / 2.58	
		ROW		3	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.33 / 0.013	0.35 / 0.014
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.12 / 0.005	0.12 / 0.005
		FACE AREA	m^2/ft^2	0.61 / 6.52	0.87 / 9.33
		ROW		2	1
		FIN PER INCH		18	16
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	544 / 21.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 040D	
	OUTDOOR UNIT			MLC 035C	MLC 040C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MINERAL (Sontex 200LT)	MINERAL (Sontex 200LT)
	OIL AMOUNT		cm^3 / fl.oz.	1240 / 43.6	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.36 / 3.95	
		ROW		4	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.35 / 0.014	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.127 / 0.005	0.127 / 0.005
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.87 / 9.33
		ROW		1	2
		FIN PER INCH		16	14
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 1	
		SIZE LENGTH	mm/in	544 + 494 / 21.4 + 19.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 050D	MCM 062C
	OUTDOOR UNIT			MLC 050C	MLC 061C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	ALU
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	160 / 6.30
	LENGTH		mm/in	200 / 7.87	202 / 7.95
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	2
	INDEX OF PROTECTION (IP)			N/A	N/A
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MINERAL (Sontex 200LT)	MINERAL (Sontex 200LT)
	OIL AMOUNT		cm^3 / fl.oz.	1950 / 68.6	1950 / 68.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.36 / 3.95	0.42 / 4.51
		ROW		4	4
		FIN PER INCH		12	14
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	SEAMLESS INNER GROOVE COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.35 / 0.014	0.33 / 0.013
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.127 / 0.005	0.127 / 0.005
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.84 / 9.04
		ROW		2	3
		FIN PER INCH		16	14
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 3	
		SIZE LENGTH	mm/in	500 + 400 / 19.6 + 15.7	
		SIZE WIDTH	mm/in	285 / 11.2	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 020DR	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	
COMPRESSOR	TYPE			ROTARY	
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID	
	OIL AMOUNT		cm^3 / fl.oz.	670 / 23.6	
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.19 / 2.06	
		ROW		3	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (RAISE LANCE)	
		THICKNESS	mm/in	0.10 / 0.004	
		FACE AREA	m^2/ft^2	0.52 / 5.59	
		ROW		1	2
		FIN PER INCH		20	24
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	544 / 21.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	**INDOOR UNIT**			**MCM 025DR**
	OUTDOOR UNIT			**MLC 025CR**
INDOOR FAN	**TYPE**			CROSS FLOW
	QUANTITY			2
	MATERIAL			ABS
	DRIVE			DIRECT
	DIAMETER		**mm/in**	146 / 5.75
	LENGTH		**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**			INDUCTION
	QUANTITY			1
	INDEX OF PROTECTION (IP)			N/A
OUTDOOR FAN	**TYPE**			PROPELLER
	QUANTITY			1
	MATERIAL			GLASS REINFORCED ACRYL SYRENE RESIN
	DRIVE			DIRECT
	DIAMETER		**mm/in**	457 / 18
OUTDOOR FAN MOTOR	**TYPE**			INDUCTION
	QUANTITY			1
	INDEX OF PROTECTION (IP)			IP54
COMPRESSOR	**TYPE**			ROTARY
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID
	OIL AMOUNT		**cm^3 / fl.oz.**	700 / 24.6
INDOOR COIL	**TUBE**	**MATERIAL**		SEAMLESS COPPER
		DIAMETER	**mm/in**	9.52 / 3/8
		THICKNESS	**mm/in**	0.30 / 0.012
	FIN	**MATERIAL**		ALUMINIUM (CORR. FIN)
		THICKNESS	**mm/in**	0.11 / 0.0043
		FACE AREA	**m^2/ft^2**	0.19 / 2.06
		ROW		3
		FIN PER INCH		12
OUTDOOR COIL	**TUBE**	**MATERIAL**		SEAMLESS INNER GROOVE COPPER
		DIAMETER	**mm/in**	7.00 / 0.276
		THICKNESS	**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**		ALUMINIUM (RAISE LANCE)
		THICKNESS	**mm/in**	0.10 / 0.004
		FACE AREA	**m^2/ft^2**	0.62 / 6.67
		ROW		2
		FIN PER INCH		18
AIR QUALITY	**FILTER**	**TYPE**		WASHABLE SARANET FILTER
		QUANTITY	**pc**	2
		SIZE **LENGTH**	**mm/in**	544 / 21.4
		SIZE **WIDTH**	**mm/in**	270 / 10.6
		SIZE **THICKNESS**	**mm/in**	3 / 0.11
CASING	**INDOOR UNIT**		**MATERIAL**	GALVANIZED MILD STEEL
			FINISHING	POLYESTER POWDER
			COLOUR	LIGHT GREY
	OUTDOOR UNIT		**MATERIAL**	GALVANIZED MILD STEEL
			FINISHING	POLYESTER POWDER
			COLOUR	LIGHT GREY

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 030DR	
	OUTDOOR UNIT			MLC 028CR	MLC 030CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			3	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	-
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			ATMOS M60 or SUNISO 4GDID	MINERAL (Sontex 200 LT)
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.24 / 2.58	
		ROW		3	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.33 / 0.013	0.35 / 0.014
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.12 / 0.005	0.12 / 0.005
		FACE AREA	m^2/ft^2	0.61 / 6.52	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	16
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	544 / 21.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 040DR	
	OUTDOOR UNIT			MLC 035CR	MLC 040CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MINERAL (Sontex 200LT)	MINERAL (Sontex 200LT)
	OIL AMOUNT		cm^3 / fl.oz.	1240 / 43.6	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.36 / 3.95	
		ROW		4	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.33 / 0.013	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	
		THICKNESS	mm/in	0.127 / 0.005	
		FACE AREA	m^2/ft^2	0.87 / 9.33	
		ROW		2	
		FIN PER INCH		16	
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 1	
		SIZE LENGTH	mm/in	544 + 494 / 21.4 + 19.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 050DR	MCM 062CR
	OUTDOOR UNIT			MLC 050CR	MLC 061CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	ALU
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	160 / 6.30
	LENGTH		mm/in	200 / 7.87	202 / 7.95
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	2
	INDEX OF PROTECTION (IP)			N/A	N/A
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MINERAL (Sontex 200LT)	MINERAL (Sontex 200LT)
	OIL AMOUNT		cm^3 / fl.oz.	1950 / 68.6	1950 / 68.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.36 / 3.95	0.42 / 4.51
		ROW		4	4
		FIN PER INCH		12	14
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.33 / 0.013	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.127 / 0.005	0.127 / 0.005
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.84 / 9.04
		ROW		2	3
		FIN PER INCH		16	14
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 3	
		SIZE LENGTH	mm/in	500 + 400 / 19.6 + 15.7	
		SIZE WIDTH	mm/in	285 / 11.2	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R410A)

MODEL	INDOOR UNIT			M5CM 040D	
	OUTDOOR UNIT			M5LC 035C	M5LC 040C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	SCROLL
	OIL TYPE			MOBIL EAL ARCTIC 22CC	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1242 / 43.7	1951 / 68.7
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.36 / 3.95	
		ROW		4	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.10 / 0.0039	0.10 / 0.0039
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 1	
		SIZE LENGTH	mm/in	544 + 494 / 21.4 + 19.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R410A)

MODEL	INDOOR UNIT			M5CM 050D	M5CM 062C
	OUTDOOR UNIT			M5LC 050C	M5LC 061C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	4
	MATERIAL			ABS	ALU
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	160 / 6.30
	LENGTH		mm/in	200 / 7.87	202 / 7.95
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	2
	INDEX OF PROTECTION (IP)			N/A	N/A
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	-
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MOBIL EAL ARCTIC 22CC	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1656 / 58.3	1591 / 56
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVED COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.30 / 0.012	0.30 / 0.012
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.36 / 3.95	0.42 / 4.51
		ROW		4	4
		FIN PER INCH		18	14
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.10 / 0.0039	0.10 / 0.0039
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.84 / 9.04
		ROW		2	3
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 3	
		SIZE LENGTH	mm/in	500 + 400 / 19.6 + 15.7	
		SIZE WIDTH	mm/in	285 / 11.2	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R22)

MODEL	INDOOR UNIT			MCM 040DR	
	OUTDOOR UNIT			MLC 035CR	MLC 040CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	SCROLL
	OIL TYPE			MOBIL EAL ARCTIC 22CC	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1242 / 43.7	1951 / 68.7
INDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	9.52 / 3/8	
		THICKNESS	mm/in	0.30 / 0.012	
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.36 / 3.95	
		ROW		4	
		FIN PER INCH		12	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.10 / 0.0039	0.10 / 0.0039
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 1	
		SIZE LENGTH	mm/in	544 + 494 / 21.4 + 19.4	
		SIZE WIDTH	mm/in	270 / 10.6	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Components Data (R410A)

MODEL	INDOOR UNIT			M5CM 050DR	M5CM 062CR
	OUTDOOR UNIT			M5LC 050CR	M5LC 061CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			4	
	MATERIAL			ABS	ALU
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	160 / 6.30
	LENGTH		mm/in	200 / 7.87	202 / 7.95
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	2
	INDEX OF PROTECTION (IP)			N/A	N/A
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	609.6 / 24	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			-	
COMPRESSOR	TYPE			SCROLL	
	OIL TYPE			MOBIL EAL ARCTIC 22CC	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1656 / 58.3	1591 / 56
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVED COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.30 / 0.012	0.30 / 0.012
	FIN	MATERIAL		ALUMINIUM (HYDROPHILIC)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.36 / 3.95	0.42 / 4.51
		ROW		4	4
		FIN PER INCH		18	14
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.10 / 0.0039	0.10 / 0.0039
		FACE AREA	m^2/ft^2	0.87 / 9.33	0.84 / 9.04
		ROW		2	3
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2 + 3	
		SIZE LENGTH	mm/in	500 + 400 / 19.6 + 15.7	
		SIZE WIDTH	mm/in	285 / 11.2	
		SIZE THICKNESS	mm/in	3 / 0.11	
CASING	INDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANIZED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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Safety Devices

MODEL	INDOOR UNIT			MCM 020D	
	OUTDOOR UNIT			MLC 018C	MLC 020C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER			N/A	N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	N/A

MODEL	INDOOR UNIT			MCM 025D
	OUTDOOR UNIT			MLC 025C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 030D	
	OUTDOOR UNIT			MLC 028C	MLC 030C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	2937 / 426
		CLOSE	kPa / psi	N/A	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	124 / 18
		CLOSE	kPa / psi	N/A	193 / 28
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A	N/A / <130 / 266>

MODEL	INDOOR UNIT			MCM 040D	
	OUTDOOR UNIT			MLC 035C	MLC 040C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	124 / 18	124 / 18
		CLOSE	kPa / psi	193 / 28	193 / 28
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Safety Devices

MODEL	INDOOR UNIT			MCM 050D	MCM 062C
	OUTDOOR UNIT			MLC 050C	MLC 061C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	124 / 18	124 / 18
		CLOSE	kPa / psi	193 / 28	193 / 28
	PHASE SEQUENCER			YES	YES
	DISCHARGE THERMOSTAT SETTING		°C / °F	130 / 266	130 / 266

MODEL	INDOOR UNIT			MCM 020DR	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			MCM 025DR
	OUTDOOR UNIT			MLC 025CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 030DR	
	OUTDOOR UNIT			MLC 028CR	MLC 030CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	2937 / 426
		CLOSE	kPa / psi	N/A	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER			N/A	NA / <YES>
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Safety Devices

MODEL	INDOOR UNIT			MCM 040DR	
	OUTDOOR UNIT			MLC 035CR	MLC 040CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A	N/A / <130 / 266>

MODEL	INDOOR UNIT			MCM 050DR	MCM 062CR
	OUTDOOR UNIT			MLC 050CR	MLC 061CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER			YES	YES
	DISCHARGE THERMOSTAT SETTING		°C / °F	130 / 266	130 / 266

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Safety Devices

MODEL	INDOOR UNIT			M5CM 040D	
	OUTDOOR UNIT			M5LC 035C	M5LC 040C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	124 / 18	124 / 18
		CLOSE	kPa / psi	193 / 28	193 / 28
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 050D	M5CM 062C
	OUTDOOR UNIT			M5LC 050C	M5LC 061C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	124 / 18	124 / 18
		CLOSE	kPa / psi	193 / 28	193 / 28
	PHASE SEQUENCER			YES	YES
	DISCHARGE THERMOSTAT SETTING		°C / °F	130 / 266	130 / 266

MODEL	INDOOR UNIT			M5CM 040DR	
	OUTDOOR UNIT			M5LC 035CR	M5LC 040CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 050DR	M5CM 062CR
	OUTDOOR UNIT			M5LC 050CR	M5LC 061CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	NC
		OPEN	kPa / psi	2937 / 426	2937 / 426
		CLOSE	kPa / psi	2413 / 350	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER			YES	YES
	DISCHARGE THERMOSTAT SETTING		°C / °F	130 / 266	130 / 266

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Performance Data

Interpolation and *Extrapolation* method can be used to get the total capacity, TC and sensible capacity, SC at those temperatures which are not stated out in the table.

Example:

Model: MCM 020D– MLC 020B
Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Solution:

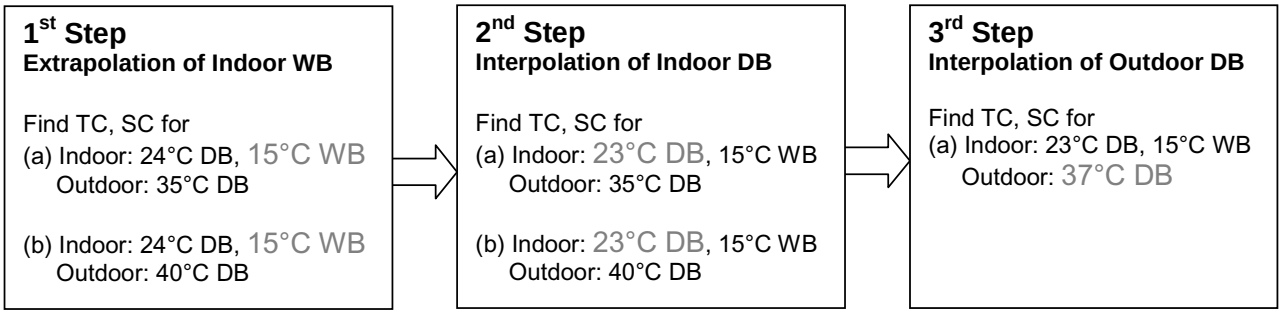
Overall
Based on the Performance table on Pg.98

1. Refer to the Indoor DB column,
   - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)

2. Refer to the Indoor WB column,
   - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)

3. Refer to the Outdoor DB column,
   - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.



Details:

1st Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 24°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C			
			35		
			TC (kW)	SC (kW)	
24	15	----------	x_1	y_1	
	16		5.238	3.695	
	17		5.421	3.503	

Total capacity, TC

$\Rightarrow$ x_1 = 5.055kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{\circ}C - 15^{\circ}C}{17°C - 16^{\circ}C} = \frac{3.503kW - y_1}{3.503kW - 3.695kW}$$

$\Rightarrow$ y_1 = 3.887kW

(b) Indoor Condition: 24°C DB, 15°C WB
Outdoor Condition: 40°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C			
			40		
			TC (kW)	SC (kW)	
24	15	----------	x_2	y_2	
	16		4.741	3.273	
	17		4.907	3.099	

Total capacity, TC

$\Rightarrow$ x_2 = 4.575kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{\circ}C - 15^{\circ}C}{17°C - 16^{\circ}C} = \frac{3.099kW - y_2}{3.099kW - 3.273kW}$$

$\Rightarrow$ y_2 = 3.447kW

***** *This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

2nd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C			
			35		
			TC (kW)	SC (kW)	
20	**15**		5.055	2.775	
23	**15**	----------	x_3	y_3	
24	**15**		5.055	3.887	

Total capacity, TC

$\Rightarrow$ x_3 = 5.055kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{\circ}\mathrm{C} - 20^{\circ}\mathrm{C}}{24^{\circ}\mathrm{C} - 23^{\circ}\mathrm{C}} = \frac{3.887\mathrm{kW} - 2.775\mathrm{kW}}{3.887\mathrm{kW} - y_3}$$

$\Rightarrow$ y_3 = 3.603kW

(b) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 40°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C			
			40		
			TC (kW)	SC (kW)	
20	**15**		4.575	2.334	
23	**15**	----------	x_4	y_4	
24	**15**		4.575	3.447	

Total capacity, TC

$\Rightarrow$ x_4 = 4.575kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{\circ}\mathrm{C} - 20^{\circ}\mathrm{C}}{24^{\circ}\mathrm{C} - 23^{\circ}\mathrm{C}} = \frac{3.447\mathrm{kW} - 2.334\mathrm{kW}}{3.447\mathrm{kW} - y_1}$$

$\Rightarrow$ y_4 = 3.169kW

***** *This is due to 2 different conditions with same WB temperature will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

3rd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Indoor DB ℃	Indoor WB ℃	Outdoor DB, ℃						
			35		37		40	
			TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
23	**15**	-------	5.055	3.603	x	y	4.575	3.169

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\mathrm{C} - 35^{\circ}\mathrm{C}}{40^{\circ}\mathrm{C} - 37^{\circ}\mathrm{C}} = \frac{4.575\mathrm{kW} - 5.055\mathrm{kW}}{4.575\mathrm{kW} - x}$$

$\Rightarrow$ x = 4.863kW

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\mathrm{C} - 35^{\circ}\mathrm{C}}{40^{\circ}\mathrm{C} - 37^{\circ}\mathrm{C}} = \frac{3.169\,\mathrm{kW} - 3.603\mathrm{kW}}{3.169\,\mathrm{kW} - \mathrm{y}}$$

$\Rightarrow$ y = 3.429kW

R22 Models
(Cooling only)

Model : MCM 020D / MLC 018C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.087	3.712	5.687	3.296	5.286	2.880	4.886	2.464	4.486	2.048	4.005	1.549
	16	6.132	3.465	5.755	3.057	5.377	2.650	5.000	2.243	4.622	1.835	4.170	1.346
24	16	6.132	4.690	5.755	4.283	5.377	3.876	5.000	3.468	4.622	3.061	4.170	2.572
	17	6.177	4.443	5.822	4.044	5.468	3.645	5.114	3.247	4.759	2.848	4.334	2.370
	18	6.222	4.195	5.890	3.805	5.559	3.415	5.227	3.025	4.896	2.635	4.498	2.167
	19	6.266	3.947	5.958	3.566	5.650	3.185	5.341	2.803	5.033	2.422	4.662	1.965
	20	6.311	3.701	6.020	3.344	5.729	2.986	5.438	2.629	5.147	2.271	4.798	1.842
28	18	6.222	5.421	5.890	5.031	5.559	4.641	5.227	4.251	4.896	3.861	4.498	3.393
	19	6.266	5.173	5.958	4.792	5.650	4.410	5.341	4.029	5.033	3.648	4.662	3.190
	20	6.311	4.927	6.020	4.569	5.729	4.212	5.438	3.855	5.147	3.497	4.798	3.068
	21	6.354	4.682	6.077	4.359	5.800	4.035	5.523	3.711	5.246	3.388	4.914	2.999
	22	6.398	4.437	6.135	4.148	5.872	3.858	5.609	3.568	5.346	3.278	5.030	2.931
	23	6.442	4.193	6.193	3.937	5.943	3.681	5.694	3.425	5.445	3.169	5.146	2.862
	24	6.485	3.948	6.250	3.726	6.015	3.504	5.780	3.282	5.545	3.059	5.263	2.793
30	20	6.311	5.540	6.020	5.182	5.729	4.825	5.438	4.467	5.147	4.110	4.798	3.681
	21	6.354	5.295	6.077	4.971	5.800	4.648	5.523	4.324	5.246	4.001	4.914	3.612
	22	6.398	5.050	6.135	4.760	5.872	4.471	5.609	4.181	5.346	3.891	5.030	3.543
	23	6.442	4.806	6.193	4.550	5.943	4.294	5.694	4.038	5.445	3.782	5.146	3.475
	24	6.485	4.561	6.250	4.339	6.015	4.117	5.780	3.894	5.545	3.672	5.263	3.406

Model : MCM 020D / MLC 020B

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.064	3.583	5.728	3.313	5.391	3.044	5.055	2.775	4.575	2.334	4.244	2.030	4.083	1.882	3.971	1.780
	16	6.304	3.266	5.949	3.038	5.594	2.810	5.238	2.582	4.741	2.160	4.397	1.868	4.231	1.727	4.115	1.628
24	16	6.304	4.379	5.949	4.151	5.594	3.923	5.238	3.695	4.741	3.273	4.397	2.981	4.231	2.840	4.115	2.742
	17	6.545	4.063	6.171	3.876	5.796	3.689	5.421	3.503	4.907	3.099	4.551	2.820	4.379	2.685	4.258	2.590
	18	6.786	3.746	6.392	3.601	5.998	3.456	5.604	3.310	5.072	2.925	4.704	2.658	4.526	2.529	4.402	2.439
	19	7.027	3.429	6.614	3.326	6.200	3.222	5.787	3.118	5.238	2.751	4.858	2.497	4.674	2.374	4.546	2.288
	20	7.268	3.111	6.839	3.035	6.410	2.958	5.981	2.882	5.414	2.537	5.021	2.298	4.831	2.183	4.698	2.103
28	18	6.786	4.859	6.392	4.714	5.998	4.569	5.604	4.423	5.072	4.038	4.704	3.771	4.526	3.642	4.402	3.552
	19	7.027	4.543	6.614	4.439	6.200	4.335	5.787	4.231	5.238	3.864	4.858	3.610	4.674	3.487	4.546	3.401
	20	7.268	4.224	6.839	4.148	6.410	4.071	5.981	3.995	5.414	3.650	5.021	3.412	4.831	3.296	4.698	3.216
	21	7.510	3.905	7.067	3.847	6.625	3.788	6.183	3.730	5.596	3.410	5.190	3.189	4.994	3.082	4.857	3.007
	22	7.751	3.586	7.295	3.545	6.840	3.505	6.384	3.465	5.778	3.170	5.359	2.966	5.156	2.868	5.015	2.799
	23	7.993	3.266	7.524	3.244	7.055	3.222	6.586	3.200	5.960	2.930	5.528	2.744	5.319	2.654	5.173	2.591
	24	8.234	2.947	7.752	2.943	7.269	2.939	6.787	2.934	6.143	2.690	5.697	2.521	5.482	2.440	5.331	2.383
30	20	7.268	4.781	6.839	4.704	6.410	4.628	5.981	4.551	5.414	4.207	5.021	3.968	4.831	3.853	4.698	3.772
	21	7.510	4.462	7.067	4.403	6.625	4.345	6.183	4.286	5.596	3.967	5.190	3.746	4.994	3.639	4.857	3.564
	22	7.751	4.142	7.295	4.102	6.840	4.062	6.384	4.021	5.778	3.727	5.359	3.523	5.156	3.424	5.015	3.356
	23	7.993	3.823	7.524	3.801	7.055	3.778	6.586	3.756	5.960	3.487	5.528	3.300	5.319	3.210	5.173	3.147
	24	8.234	3.503	7.752	3.499	7.269	3.495	6.787	3.491	6.143	3.247	5.697	3.078	5.482	2.996	5.331	2.939
														HIGH AMBIENT			

R22 Models
(Cooling only)

Model : MCM 020D / MLC 020C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.377	4.021	5.956	3.642	5.535	3.262	5.113	2.882	4.692	2.503	4.186	2.047
	16	6.498	3.650	6.080	3.311	5.661	2.972	5.243	2.633	4.825	2.294	4.323	1.887
24	16	6.498	4.731	6.080	4.392	5.661	4.053	5.243	3.714	4.825	3.375	4.323	2.968
	17	6.619	4.360	6.203	4.062	5.788	3.763	5.373	3.465	4.958	3.166	4.459	2.808
	18	6.740	3.989	6.327	3.731	5.915	3.473	5.503	3.216	5.091	2.958	4.596	2.649
	19	6.860	3.617	6.451	3.400	6.042	3.183	5.633	2.966	5.224	2.749	4.732	2.489
	20	6.982	3.246	6.579	3.070	6.176	2.894	5.773	2.718	5.370	2.542	4.887	2.331
28	18	6.740	5.070	6.327	4.812	5.915	4.554	5.503	4.297	5.091	4.039	4.596	3.730
	19	6.860	4.698	6.451	4.481	6.042	4.264	5.633	4.047	5.224	3.830	4.732	3.570
	20	6.982	4.327	6.579	4.151	6.176	3.975	5.773	3.799	5.370	3.623	4.887	3.412
	21	7.103	3.956	6.709	3.821	6.315	3.686	5.921	3.551	5.527	3.416	5.054	3.254
	22	7.224	3.585	6.839	3.491	6.454	3.397	6.068	3.303	5.683	3.210	5.221	3.097
	23	7.346	3.213	6.969	3.161	6.593	3.108	6.216	3.056	5.839	3.003	5.387	2.940
	24	7.467	2.842	7.099	2.831	6.731	2.819	6.363	2.808	5.996	2.796	5.554	2.782
30	20	6.982	4.868	6.579	4.692	6.176	4.516	5.773	4.340	5.370	4.163	4.887	3.952
	21	7.103	4.496	6.709	4.362	6.315	4.227	5.921	4.092	5.527	3.957	5.054	3.795
	22	7.224	4.125	6.839	4.031	6.454	3.938	6.068	3.844	5.683	3.750	5.221	3.638
	23	7.346	3.754	6.969	3.701	6.593	3.649	6.216	3.596	5.839	3.543	5.387	3.480
	24	7.467	3.383	7.099	3.371	6.731	3.360	6.363	3.348	5.996	3.337	5.554	3.323

Model : MCM 025D / MLC 025B

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.258	4.540	6.899	4.265	6.540	3.990	6.182	3.715	5.991	3.541	5.687	3.262	5.541	3.129	5.440	3.037
	16	7.637	4.214	7.239	3.974	6.840	3.735	6.442	3.496	6.244	3.328	5.926	3.061	5.774	2.933	5.669	2.844
24	16	7.637	5.368	7.239	5.129	6.840	4.889	6.442	4.650	6.244	4.483	5.926	4.215	5.774	4.087	5.669	3.999
	17	8.016	5.041	7.578	4.838	7.140	4.634	6.702	4.431	6.496	4.271	6.166	4.014	6.007	3.891	5.898	3.806
	18	8.395	4.714	7.918	4.547	7.440	4.379	6.963	4.212	6.748	4.058	6.405	3.812	6.241	3.694	6.127	3.613
	19	8.774	4.387	8.257	4.256	7.740	4.124	7.223	3.993	7.000	3.846	6.645	3.611	6.474	3.498	6.356	3.420
	20	9.154	4.059	8.602	3.948	8.051	3.837	7.499	3.727	7.268	3.588	6.899	3.366	6.721	3.259	6.599	3.186
28	18	8.395	5.869	7.918	5.701	7.440	5.534	6.963	5.367	6.748	5.213	6.405	4.967	6.241	4.849	6.127	4.768
	19	8.774	5.542	8.257	5.410	7.740	5.279	7.223	5.147	7.000	5.001	6.645	4.765	6.474	4.653	6.356	4.575
	20	9.154	5.213	8.602	5.103	8.051	4.992	7.499	4.881	7.268	4.743	6.899	4.521	6.721	4.414	6.599	4.341
	21	9.534	4.883	8.951	4.783	8.369	4.684	7.786	4.584	7.546	4.454	7.162	4.247	6.978	4.147	6.852	4.079
	22	9.914	4.553	9.300	4.464	8.686	4.375	8.073	4.286	7.824	4.166	7.426	3.973	7.235	3.881	7.104	3.817
	23	10.294	4.224	9.649	4.145	9.004	4.067	8.359	3.988	8.102	3.877	7.690	3.699	7.492	3.614	7.356	3.555
	24	10.674	3.894	9.998	3.826	9.322	3.758	8.646	3.691	8.380	3.589	7.954	3.425	7.749	3.347	7.609	3.293
30	20	9.154	5.791	8.602	5.680	8.051	5.569	7.499	5.459	7.268	5.320	6.899	5.098	6.721	4.991	6.599	4.918
	21	9.534	5.461	8.951	5.361	8.369	5.261	7.786	5.161	7.546	5.031	7.162	4.824	6.978	4.725	6.852	4.656
	22	9.914	5.131	9.300	5.042	8.686	4.952	8.073	4.863	7.824	4.743	7.426	4.550	7.235	4.458	7.104	4.394
	23	10.294	4.801	9.649	4.722	9.004	4.644	8.359	4.566	8.102	4.454	7.690	4.276	7.492	4.191	7.356	4.132
	24	10.674	4.471	9.998	4.403	9.322	4.336	8.646	4.268	8.380	4.166	7.954	4.003	7.749	3.924	7.609	3.870
														HIGH AMBIENT			

R22 Models
(Cooling only)

Model : MCM 025D / MLC 025C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.956	5.047	7.446	4.579	6.937	4.112	6.427	3.645	5.918	3.178	5.306	2.617
	16	8.105	4.591	7.603	4.169	7.101	3.748	6.599	3.326	6.097	2.905	5.495	2.399
24	16	8.105	5.926	7.603	5.504	7.101	5.083	6.599	4.661	6.097	4.240	5.495	3.734
	17	8.253	5.470	7.759	5.094	7.265	4.718	6.770	4.343	6.276	3.967	5.683	3.516
	18	8.402	5.014	7.915	4.684	7.429	4.354	6.942	4.024	6.455	3.694	5.871	3.297
	19	8.551	4.558	8.072	4.274	7.593	3.989	7.113	3.705	6.634	3.420	6.059	3.079
	20	8.700	4.103	8.228	3.868	7.757	3.632	7.286	3.397	6.815	3.161	6.250	2.879
28	18	8.402	6.350	7.915	6.019	7.429	5.689	6.942	5.359	6.455	5.029	5.871	4.633
	19	8.551	5.894	8.072	5.609	7.593	5.325	7.113	5.040	6.634	4.756	6.059	4.414
	20	8.700	5.438	8.228	5.203	7.757	4.967	7.286	4.732	6.815	4.496	6.250	4.214
	21	8.848	4.983	8.386	4.799	7.923	4.615	7.460	4.431	6.997	4.247	6.442	4.026
	22	8.997	4.528	8.543	4.395	8.088	4.262	7.633	4.130	7.179	3.997	6.633	3.838
	23	9.146	4.073	8.700	3.991	8.253	3.910	7.807	3.829	7.361	3.747	6.825	3.650
	24	9.295	3.618	8.857	3.588	8.419	3.558	7.981	3.528	7.543	3.498	7.017	3.461
30	20	8.700	6.106	8.228	5.870	7.757	5.635	7.286	5.400	6.815	5.164	6.250	4.881
	21	8.848	5.651	8.386	5.467	7.923	5.283	7.460	5.098	6.997	4.914	6.442	4.693
	22	8.997	5.196	8.543	5.063	8.088	4.930	7.633	4.797	7.179	4.665	6.633	4.505
	23	9.146	4.740	8.700	4.659	8.253	4.578	7.807	4.496	7.361	4.415	6.825	4.317
	24	9.295	4.285	8.857	4.255	8.419	4.225	7.981	4.195	7.543	4.165	7.017	4.129

Model : MCM 030D / MLC 028C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	9.047	6.110	8.447	5.509	7.846	4.907	7.245	4.305	6.644	3.704	5.923	2.982
	16	9.053	5.681	8.502	5.129	7.951	4.577	7.401	4.025	6.850	3.472	6.189	2.810
24	16	9.053	7.149	8.502	6.597	7.951	6.045	7.401	5.493	6.850	4.941	6.189	4.278
	17	9.059	6.720	8.558	6.217	8.057	5.714	7.556	5.212	7.055	4.709	6.454	4.106
	18	9.065	6.291	8.614	5.837	8.163	5.384	7.712	4.931	7.261	4.478	6.720	3.934
	19	9.071	5.862	8.670	5.458	8.269	5.054	7.868	4.650	7.467	4.246	6.986	3.761
	20	9.075	5.432	8.710	5.074	8.345	4.716	7.980	4.357	7.616	3.999	7.178	3.569
28	18	9.065	7.759	8.614	7.306	8.163	6.852	7.712	6.399	7.261	5.946	6.720	5.402
	19	9.071	7.330	8.670	6.926	8.269	6.522	7.868	6.118	7.467	5.714	6.986	5.230
	20	9.075	6.900	8.710	6.542	8.345	6.184	7.980	5.825	7.616	5.467	7.178	5.037
	21	9.078	6.470	8.740	6.155	8.402	5.840	8.064	5.525	7.726	5.210	7.320	4.832
	22	9.081	6.040	8.769	5.768	8.458	5.496	8.147	5.224	7.836	4.952	7.463	4.626
	23	9.084	5.611	8.799	5.382	8.515	5.153	8.231	4.924	7.946	4.695	7.605	4.420
	24	9.087	5.181	8.829	4.995	8.572	4.809	8.314	4.623	8.057	4.437	7.748	4.214
30	20	9.075	7.634	8.710	7.276	8.345	6.918	7.980	6.559	7.616	6.201	7.178	5.771
	21	9.078	7.204	8.740	6.889	8.402	6.574	8.064	6.259	7.726	5.944	7.320	5.566
	22	9.081	6.774	8.769	6.502	8.458	6.230	8.147	5.958	7.836	5.686	7.463	5.360
	23	9.084	6.345	8.799	6.116	8.515	5.887	8.231	5.658	7.946	5.429	7.605	5.154
	24	9.087	5.915	8.829	5.729	8.572	5.543	8.314	5.357	8.057	5.171	7.748	4.949

R22 Models
(Cooling only)

Model : MCM 030D / MLC 030C

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.391	5.170	8.022	4.879	7.653	4.587	7.284	4.295	6.935	3.977	6.570	3.645	6.286	3.386	5.970	3.098
	16	8.916	4.900	8.486	4.618	8.057	4.336	7.627	4.054	7.261	3.747	6.879	3.427	6.582	3.177	6.251	2.899
24	16	8.916	6.300	8.486	6.018	8.057	5.736	7.627	5.454	7.261	5.147	6.879	4.827	6.582	4.578	6.251	4.300
	17	9.442	6.030	8.951	5.758	8.460	5.485	7.970	5.212	7.588	4.917	7.189	4.609	6.878	4.369	6.532	4.101
	18	9.967	5.760	9.416	5.497	8.864	5.234	8.313	4.970	7.914	4.687	7.498	4.391	7.174	4.160	6.813	3.903
	19	10.493	5.490	9.880	5.236	9.268	4.982	8.655	4.728	8.240	4.456	7.807	4.172	7.470	3.951	7.094	3.705
	20	11.019	5.220	10.351	4.969	9.684	4.719	9.016	4.468	8.584	4.209	8.133	3.938	7.782	3.727	7.390	3.492
28	18	9.967	7.161	9.416	6.897	8.864	6.634	8.313	6.370	7.914	6.087	7.498	5.791	7.174	5.560	6.813	5.303
	19	10.493	6.891	9.880	6.637	9.268	6.383	8.655	6.129	8.240	5.857	7.807	5.573	7.470	5.352	7.094	5.105
	20	11.019	6.620	10.351	6.369	9.684	6.119	9.016	5.869	8.584	5.609	8.133	5.338	7.782	5.127	7.390	4.892
	21	11.546	6.349	10.827	6.098	10.108	5.847	9.390	5.596	8.939	5.350	8.469	5.092	8.104	4.892	7.696	4.669
	22	12.072	6.078	11.302	5.826	10.533	5.575	9.763	5.324	9.295	5.090	8.806	4.847	8.426	4.657	8.002	4.446
	23	12.599	5.806	11.778	5.555	10.957	5.303	10.136	5.052	9.650	4.831	9.143	4.601	8.748	4.422	8.307	4.222
	24	13.126	5.535	12.253	5.283	11.381	5.031	10.509	4.779	10.005	4.572	9.479	4.356	9.070	4.187	8.613	3.999
30	20	11.019	7.320	10.351	7.070	9.684	6.819	9.016	6.569	8.584	6.309	8.133	6.038	7.782	5.827	7.390	5.592
	21	11.546	7.049	10.827	6.798	10.108	6.547	9.390	6.296	8.939	6.050	8.469	5.793	8.104	5.592	7.696	5.369
	22	12.072	6.778	11.302	6.527	10.533	6.275	9.763	6.024	9.295	5.791	8.806	5.547	8.426	5.357	8.002	5.146
	23	12.599	6.507	11.778	6.255	10.957	6.003	10.136	5.752	9.650	5.531	9.143	5.301	8.748	5.122	8.307	4.923
	24	13.126	6.235	12.253	5.983	11.381	5.731	10.509	5.479	10.005	5.272	9.479	5.056	9.070	4.887	8.613	4.699
														HIGH AMBIENT			

Model : MCM 040D / MLC 035C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.033	7.153	10.366	6.524	9.700	5.895	9.033	5.266	8.367	4.637	7.567	3.883
	16	11.206	6.578	10.568	6.012	9.929	5.446	9.290	4.880	8.652	4.314	7.886	3.634
24	16	11.206	8.410	10.568	7.844	9.929	7.278	9.290	6.711	8.652	6.145	7.886	5.466
	17	11.379	7.835	10.769	7.332	10.158	6.828	9.547	6.325	8.937	5.822	8.204	5.218
	18	11.553	7.260	10.970	6.820	10.387	6.379	9.805	5.938	9.222	5.498	8.523	4.969
	19	11.726	6.685	11.171	6.308	10.616	5.930	10.062	5.552	9.507	5.174	8.841	4.721
	20	11.898	6.110	11.358	5.789	10.819	5.469	10.280	5.148	9.741	4.827	9.094	4.442
28	18	11.553	9.092	10.970	8.651	10.387	8.211	9.805	7.770	9.222	7.329	8.523	6.801
	19	11.726	8.517	11.171	8.139	10.616	7.761	10.062	7.383	9.507	7.006	8.841	6.552
	20	11.898	7.942	11.358	7.621	10.819	7.300	10.280	6.979	9.741	6.659	9.094	6.274
	21	12.068	7.366	11.537	7.098	11.005	6.831	10.473	6.563	9.941	6.296	9.303	5.975
	22	12.239	6.790	11.715	6.576	11.190	6.362	10.666	6.148	10.142	5.933	9.512	5.677
	23	12.410	6.214	11.893	6.053	11.376	5.892	10.859	5.732	10.342	5.571	9.722	5.378
	24	12.581	5.638	12.071	5.531	11.561	5.423	11.052	5.316	10.542	5.208	9.931	5.080
30	20	11.898	8.857	11.358	8.537	10.819	8.216	10.280	7.895	9.741	7.574	9.094	7.189
	21	12.068	8.281	11.537	8.014	11.005	7.747	10.473	7.479	9.941	7.212	9.303	6.891
	22	12.239	7.706	11.715	7.491	11.190	7.277	10.666	7.063	10.142	6.849	9.512	6.592
	23	12.410	7.130	11.893	6.969	11.376	6.808	10.859	6.647	10.342	6.487	9.722	6.294
	24	12.581	6.554	12.071	6.446	11.561	6.339	11.052	6.232	10.542	6.124	9.931	5.995

R22 Models
(Cooling only)

Model : MCM 040D / MLC 040C

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.844	7.117	11.211	6.638	10.578	6.159	9.945	5.680	9.107	4.908	8.266	4.133	7.952	3.843	7.836	3.736
	16	12.516	6.664	11.793	6.236	11.071	5.808	10.349	5.381	9.477	4.633	8.602	3.883	8.275	3.603	8.154	3.499
24	16	12.516	8.748	11.793	8.320	11.071	7.892	10.349	7.464	9.477	6.716	8.602	5.967	8.275	5.687	8.154	5.583
	17	13.188	8.295	12.376	7.918	11.565	7.541	10.753	7.164	9.847	6.442	8.938	5.717	8.599	5.447	8.473	5.346
	18	13.860	7.843	12.959	7.516	12.058	7.190	11.157	6.864	10.217	6.167	9.274	5.468	8.922	5.207	8.791	5.110
	19	14.532	7.390	13.542	7.115	12.552	6.839	11.562	6.564	10.587	5.892	9.610	5.219	9.245	4.967	9.110	4.874
	20	15.207	6.934	14.153	6.683	13.099	6.431	12.045	6.179	11.030	5.540	10.012	4.898	9.631	4.659	9.490	4.570
28	18	13.860	9.926	12.959	9.600	12.058	9.274	11.157	8.947	10.217	8.251	9.274	7.551	8.922	7.290	8.791	7.193
	19	14.532	9.474	13.542	9.198	12.552	8.923	11.562	8.647	10.587	7.976	9.610	7.302	9.245	7.050	9.110	6.957
	20	15.207	9.018	14.153	8.766	13.099	8.514	12.045	8.262	11.030	7.623	10.012	6.982	9.631	6.742	9.490	6.653
	21	15.884	8.560	14.783	8.313	13.682	8.066	12.580	7.820	11.520	7.218	10.457	6.614	10.060	6.389	9.912	6.305
	22	16.561	8.102	15.413	7.860	14.265	7.619	13.116	7.377	12.011	6.813	10.902	6.246	10.488	6.035	10.334	5.956
	23	17.238	7.644	16.043	7.408	14.847	7.171	13.652	6.935	12.502	6.408	11.347	5.879	10.917	5.681	10.757	5.608
	24	17.916	7.186	16.673	6.955	15.430	6.724	14.188	6.492	12.992	6.002	11.793	5.511	11.345	5.327	11.179	5.259
30	20	15.207	10.059	14.153	9.808	13.099	9.556	12.045	9.304	11.030	8.665	10.012	8.023	9.631	7.784	9.490	7.695
	21	15.884	9.601	14.783	9.355	13.682	9.108	12.580	8.861	11.520	8.259	10.457	7.656	10.060	7.430	9.912	7.347
	22	16.561	9.144	15.413	8.902	14.265	8.660	13.116	8.419	12.011	7.854	10.902	7.288	10.488	7.076	10.334	6.998
	23	17.238	8.686	16.043	8.449	14.847	8.213	13.652	7.977	12.502	7.449	11.347	6.920	10.917	6.723	10.757	6.649
	24	17.916	8.228	16.673	7.996	15.430	7.765	14.188	7.534	12.992	7.044	11.793	6.552	11.345	6.369	11.179	6.301
														HIGH AMBIENT			

Model : MCM 050D / MLC 050C

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.921	8.402	13.287	8.036	12.652	7.669	12.018	7.302	11.323	6.681	10.687	6.111	10.315	5.779	9.986	5.485
	16	15.046	8.034	14.235	7.657	13.425	7.280	12.614	6.903	11.885	6.304	11.216	5.756	10.826	5.436	10.481	5.153
24	16	15.046	10.091	14.235	9.713	13.425	9.336	12.614	8.959	11.885	8.361	11.216	7.813	10.826	7.493	10.481	7.209
	17	16.171	9.722	15.184	9.335	14.197	8.947	13.210	8.560	12.446	7.985	11.746	7.458	11.338	7.150	10.976	6.878
	18	17.296	9.353	16.133	8.956	14.969	8.558	13.805	8.161	13.007	7.609	12.276	7.103	11.849	6.807	11.471	6.546
	19	18.422	8.985	17.081	8.577	15.741	8.169	14.401	7.761	13.569	7.232	12.806	6.748	12.360	6.465	11.966	6.214
	20	19.552	8.616	18.080	8.196	16.608	7.777	15.136	7.357	14.261	6.851	13.459	6.388	12.991	6.118	12.576	5.878
28	18	17.296	11.410	16.133	11.013	14.969	10.615	13.805	10.217	13.007	9.665	12.276	9.159	11.849	8.864	11.471	8.602
	19	18.422	11.042	17.081	10.634	15.741	10.226	14.401	9.818	13.569	9.289	12.806	8.804	12.360	8.521	11.966	8.271
	20	19.552	10.673	18.080	10.253	16.608	9.833	15.136	9.414	14.261	8.908	13.459	8.445	12.991	8.174	12.576	7.935
	21	20.686	10.304	19.111	9.871	17.537	9.439	15.962	9.006	15.040	8.524	14.194	8.082	13.700	7.824	13.263	7.596
	22	21.820	9.935	20.143	9.490	18.466	9.044	16.789	8.598	15.819	8.140	14.929	7.720	14.410	7.474	13.950	7.257
	23	22.954	9.566	21.175	9.108	19.395	8.649	17.616	8.191	16.598	7.756	15.664	7.357	15.120	7.125	14.637	6.918
	24	24.088	9.197	22.206	8.726	20.324	8.254	18.443	7.783	17.377	7.372	16.399	6.995	15.829	6.775	15.324	6.580
30	20	19.552	11.701	18.080	11.281	16.608	10.862	15.136	10.442	14.261	9.936	13.459	9.473	12.991	9.203	12.576	8.963
	21	20.686	11.332	19.111	10.900	17.537	10.467	15.962	10.034	15.040	9.552	14.194	9.111	13.700	8.853	13.263	8.624
	22	21.820	10.964	20.143	10.518	18.466	10.072	16.789	9.627	15.819	9.168	14.929	8.748	14.410	8.503	13.950	8.286
	23	22.954	10.595	21.175	10.136	19.395	9.677	17.616	9.219	16.598	8.784	15.664	8.386	15.120	8.153	14.637	7.947
	24	24.088	10.226	22.206	9.754	20.324	9.283	18.443	8.811	17.377	8.400	16.399	8.023	15.829	7.803	15.324	7.608
														HIGH AMBIENT			

R22 Models
(Cooling only)

Model : MCM 062C / MLC 061C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	17.094	10.283	16.118	9.482	15.142	8.680	14.166	7.878	13.190	7.077	12.019	6.115
	16	17.848	9.526	16.791	8.802	15.734	8.078	14.677	7.354	13.620	6.630	12.351	5.761
24	16	17.848	12.600	16.791	11.876	15.734	11.152	14.677	10.428	13.620	9.704	12.351	8.835
	17	18.601	11.843	17.463	11.196	16.325	10.550	15.187	9.903	14.049	9.257	12.684	8.481
	18	19.355	11.085	18.136	10.516	16.917	9.947	15.698	9.379	14.479	8.810	13.016	8.127
	19	20.108	10.328	18.808	9.836	17.508	9.345	16.208	8.854	14.909	8.363	13.349	7.773
	20	20.864	9.568	19.509	9.134	18.153	8.700	16.797	8.266	15.442	7.832	13.815	7.311
28	18	19.355	14.159	18.136	13.590	16.917	13.022	15.698	12.453	14.479	11.884	13.016	11.201
	19	20.108	13.402	18.808	12.911	17.508	12.419	16.208	11.928	14.909	11.437	13.349	10.848
	20	20.864	12.642	19.509	12.208	18.153	11.774	16.797	11.340	15.442	10.906	13.815	10.385
	21	21.623	11.880	20.228	11.490	18.833	11.099	17.438	10.709	16.044	10.319	14.370	9.850
	22	22.381	11.119	20.947	10.772	19.513	10.425	18.079	10.078	16.646	9.731	14.925	9.315
	23	23.139	10.357	21.666	10.054	20.194	9.751	18.721	9.447	17.248	9.144	15.480	8.780
	24	23.898	9.595	22.386	9.336	20.874	9.076	19.362	8.817	17.850	8.557	16.035	8.245
30	20	20.864	14.179	19.509	13.745	18.153	13.311	16.797	12.877	15.442	12.443	13.815	11.922
	21	21.623	13.417	20.228	13.027	18.833	12.636	17.438	12.246	16.044	11.856	14.370	11.387
	22	22.381	12.656	20.947	12.309	19.513	11.962	18.079	11.615	16.646	11.268	14.925	10.852
	23	23.139	11.894	21.666	11.591	20.194	11.288	18.721	10.984	17.248	10.681	15.480	10.317
	24	23.898	11.133	22.386	10.873	20.874	10.613	19.362	10.354	17.850	10.094	16.035	9.782

R22 Models
(Heatpump)

Model : MCM 020DR / MLC 020BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.629	3.431	5.366	3.250	5.102	3.069	4.839	2.889	4.380	2.470	4.062	2.181	3.908	2.041	3.801	1.943
	16	6.057	3.248	5.728	3.078	5.400	2.907	5.071	2.736	4.590	2.332	4.257	2.053	4.096	1.917	3.984	1.823
24	16	6.057	4.157	5.728	3.986	5.400	3.816	5.071	3.645	4.590	3.241	4.257	2.961	4.096	2.826	3.984	2.732
	17	6.485	3.975	6.091	3.814	5.698	3.653	5.304	3.493	4.800	3.103	4.452	2.833	4.284	2.703	4.166	2.612
	18	6.913	3.793	6.454	3.642	5.995	3.491	5.536	3.340	5.011	2.965	4.647	2.705	4.472	2.580	4.349	2.492
	19	7.341	3.610	6.817	3.469	6.293	3.329	5.769	3.188	5.221	2.827	4.842	2.577	4.659	2.457	4.531	2.372
	20	7.771	3.427	7.198	3.289	6.625	3.150	6.052	3.011	5.478	2.667	5.080	2.429	4.888	2.314	4.754	2.234
28	18	6.913	4.701	6.454	4.550	5.995	4.400	5.536	4.249	5.011	3.873	4.647	3.614	4.472	3.488	4.349	3.401
	19	7.341	4.519	6.817	4.378	6.293	4.237	5.769	4.096	5.221	3.735	4.842	3.486	4.659	3.365	4.531	3.281
	20	7.771	4.336	7.198	4.197	6.625	4.059	6.052	3.920	5.478	3.576	5.080	3.338	4.888	3.223	4.754	3.143
	21	8.202	4.152	7.591	4.011	6.980	3.870	6.369	3.728	5.765	3.402	5.347	3.177	5.144	3.068	5.003	2.992
	22	8.634	3.969	7.985	3.824	7.336	3.680	6.687	3.536	6.052	3.229	5.613	3.016	5.401	2.913	5.253	2.841
	23	9.065	3.785	8.378	3.638	7.691	3.491	7.004	3.344	6.339	3.055	5.880	2.855	5.657	2.758	5.502	2.690
	24	9.496	3.601	8.771	3.452	8.046	3.302	7.322	3.152	6.627	2.881	6.146	2.694	5.913	2.603	5.751	2.540
30	20	7.771	4.790	7.198	4.652	6.625	4.513	6.052	4.374	5.478	4.030	5.080	3.792	4.888	3.677	4.754	3.597
	21	8.202	4.607	7.591	4.465	6.980	4.324	6.369	4.183	5.765	3.857	5.347	3.631	5.144	3.522	5.003	3.446
	22	8.634	4.423	7.985	4.279	7.336	4.135	6.687	3.991	6.052	3.683	5.613	3.470	5.401	3.367	5.253	3.295
	23	9.065	4.239	8.378	4.092	7.691	3.946	7.004	3.799	6.339	3.509	5.880	3.309	5.657	3.212	5.502	3.145
	24	9.496	4.055	8.771	3.906	8.046	3.756	7.322	3.607	6.627	3.336	6.146	3.148	5.913	3.057	5.751	2.994
														HIGH AMBIENT			

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.438	3.438	3.765	3.765	3.874	3.874	5.072	5.072	5.725	5.725	6.052	6.052	6.379	6.379
17	3.485	3.485	3.731	3.731	3.812	3.812	5.433	5.433	5.575	5.575	5.887	5.887	6.198	6.198
19	3.532	3.532	3.696	3.696	3.751	3.751	5.794	5.794	5.425	5.425	5.721	5.721	6.017	6.017
21	3.579	3.579	3.661	3.661	3.689	3.689	6.155	6.155	5.276	5.276	5.556	5.556	5.835	5.835
23	3.445	3.445	3.582	3.582	3.627	3.627	5.531	5.531	5.126	5.126	5.390	5.390	5.654	5.654
25	3.312	3.312	3.502	3.502	3.565	3.565	4.907	4.907	4.976	4.976	5.224	5.224	5.473	5.473
27	3.179	3.179	3.423	3.423	3.504	3.504	4.283	4.283	4.826	4.826	5.059	5.059	5.292	5.292
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 020DR / MLC 020CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.377	4.021	5.956	3.642	5.535	3.262	5.113	2.882	4.692	2.503	4.186	2.047
	16	6.498	3.650	6.080	3.311	5.661	2.972	5.243	2.633	4.825	2.294	4.323	1.887
24	16	6.498	4.731	6.080	4.392	5.661	4.053	5.243	3.714	4.825	3.375	4.323	2.968
	17	6.619	4.360	6.203	4.062	5.788	3.763	5.373	3.465	4.958	3.166	4.459	2.808
	18	6.740	3.989	6.327	3.731	5.915	3.473	5.503	3.216	5.091	2.958	4.596	2.649
	19	6.860	3.617	6.451	3.400	6.042	3.183	5.633	2.966	5.224	2.749	4.732	2.489
	20	6.982	3.246	6.579	3.070	6.176	2.894	5.773	2.718	5.370	2.542	4.887	2.331
28	18	6.740	5.070	6.327	4.812	5.915	4.554	5.503	4.297	5.091	4.039	4.596	3.730
	19	6.860	4.698	6.451	4.481	6.042	4.264	5.633	4.047	5.224	3.830	4.732	3.570
	20	6.982	4.327	6.579	4.151	6.176	3.975	5.773	3.799	5.370	3.623	4.887	3.412
	21	7.103	3.956	6.709	3.821	6.315	3.686	5.921	3.551	5.527	3.416	5.054	3.254
	22	7.224	3.585	6.839	3.491	6.454	3.397	6.068	3.303	5.683	3.210	5.221	3.097
	23	7.346	3.213	6.969	3.161	6.593	3.108	6.216	3.056	5.839	3.003	5.387	2.940
	24	7.467	2.842	7.099	2.831	6.731	2.819	6.363	2.808	5.996	2.796	5.554	2.782
30	20	6.982	4.868	6.579	4.692	6.176	4.516	5.773	4.340	5.370	4.163	4.887	3.952
	21	7.103	4.496	6.709	4.362	6.315	4.227	5.921	4.092	5.527	3.957	5.054	3.795
	22	7.224	4.125	6.839	4.031	6.454	3.938	6.068	3.844	5.683	3.750	5.221	3.638
	23	7.346	3.754	6.969	3.701	6.593	3.649	6.216	3.596	5.839	3.543	5.387	3.480
	24	7.467	3.383	7.099	3.371	6.731	3.360	6.363	3.348	5.996	3.337	5.554	3.323

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	2.620	2.620	3.284	3.284	3.505	3.505	5.940	5.940	7.268	7.268	7.932	7.932	8.597	8.597
17	2.553	2.553	3.217	3.217	3.438	3.438	5.728	5.728	7.070	7.070	7.711	7.711	8.352	8.352
19	2.486	2.486	3.150	3.150	3.371	3.371	5.516	5.516	6.872	6.872	7.490	7.490	8.108	8.108
21	2.419	2.419	3.083	3.083	3.304	3.304	5.303	5.303	6.674	6.674	7.268	7.268	7.863	7.863
23	2.415	2.415	3.032	3.032	3.237	3.237	5.215	5.215	6.476	6.476	7.047	7.047	7.619	7.619
25	2.412	2.412	2.981	2.981	3.170	3.170	5.127	5.127	6.277	6.277	6.826	6.826	7.374	7.374
27	2.408	2.408	2.930	2.930	3.103	3.103	5.039	5.039	6.079	6.079	6.604	6.604	7.130	7.130
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 025DR / MLC 025BR
Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.257	3.436	6.065	3.385	5.872	3.335	5.679	3.285	5.504	3.132	5.225	2.887	5.090	2.769	4.998	2.688
	16	6.661	3.252	6.436	3.215	6.212	3.177	5.987	3.139	5.803	2.991	5.508	2.753	5.366	2.639	5.269	2.560
24	16	6.661	4.259	6.436	4.221	6.212	4.184	5.987	4.146	5.803	3.997	5.508	3.760	5.366	3.646	5.269	3.567
	17	7.065	4.076	6.808	4.051	6.552	4.026	6.295	4.001	6.101	3.857	5.791	3.626	5.642	3.515	5.540	3.439
	18	7.468	3.892	7.180	3.880	6.891	3.868	6.603	3.855	6.400	3.716	6.074	3.492	5.918	3.385	5.811	3.311
	19	7.872	3.709	7.551	3.709	7.231	3.710	6.911	3.710	6.698	3.575	6.358	3.359	6.194	3.255	6.082	3.183
	20	8.274	3.523	7.909	3.514	7.544	3.506	7.179	3.498	6.958	3.369	6.604	3.163	6.434	3.065	6.317	2.997
28	18	7.468	4.899	7.180	4.886	6.891	4.874	6.603	4.862	6.400	4.722	6.074	4.499	5.918	4.392	5.811	4.318
	19	7.872	4.715	7.551	4.716	7.231	4.716	6.911	4.717	6.698	4.581	6.358	4.365	6.194	4.261	6.082	4.190
	20	8.274	4.529	7.909	4.521	7.544	4.513	7.179	4.504	6.958	4.376	6.604	4.170	6.434	4.071	6.317	4.003
	21	8.675	4.342	8.257	4.310	7.838	4.279	7.420	4.247	7.191	4.127	6.826	3.934	6.651	3.841	6.530	3.777
	22	9.076	4.154	8.604	4.100	8.133	4.045	7.661	3.991	7.425	3.878	7.048	3.697	6.867	3.611	6.742	3.551
	23	9.477	3.966	8.952	3.889	8.427	3.811	7.903	3.734	7.659	3.629	7.270	3.461	7.083	3.380	6.954	3.325
	24	9.878	3.779	9.300	3.678	8.722	3.577	8.144	3.477	7.893	3.380	7.492	3.225	7.299	3.150	7.167	3.099
30	20	8.274	5.033	7.909	5.024	7.544	5.016	7.179	5.008	6.958	4.879	6.604	4.673	6.434	4.575	6.317	4.507
	21	8.675	4.845	8.257	4.814	7.838	4.782	7.420	4.751	7.191	4.630	6.826	4.437	6.651	4.344	6.530	4.280
	22	9.076	4.657	8.604	4.603	8.133	4.548	7.661	4.494	7.425	4.381	7.048	4.201	6.867	4.114	6.742	4.054
	23	9.477	4.470	8.952	4.392	8.427	4.315	7.903	4.237	7.659	4.132	7.270	3.964	7.083	3.884	6.954	3.828
	24	9.878	4.282	9.300	4.181	8.722	4.081	8.144	3.980	7.893	3.883	7.492	3.728	7.299	3.653	7.167	3.602
														HIGH AMBIENT			

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18		
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	
15	3.973	3.973	4.485	4.485	4.656	4.656	6.532	6.532	7.556	7.556	8.068	8.068	8.580	8.580	
17	3.994	3.994	4.432	4.432	4.578	4.578	6.797	6.797	7.356	7.356	7.846	7.846	8.336	8.336	
19	4.015	4.015	4.379	4.379	4.500	4.500	7.062	7.062	7.155	7.155	7.624	7.624	8.092	8.092	
21	4.036	4.036	4.326	4.326	4.422	4.422	7.327	7.327	6.955	6.955	7.401	7.401	7.848	7.848	
23	3.913	3.913	4.237	4.237	4.345	4.345	6.726	6.726	6.754	6.754	7.179	7.179	7.605	7.605	
25	3.791	3.791	4.148	4.148	4.267	4.267	6.124	6.124	6.554	6.554	6.957	6.957	7.361	7.361	
27	3.669	3.669	4.059	4.059	4.189	4.189	5.523	5.523	6.353	6.353	6.735	6.735	7.117	7.117	
	FROST REGION														

R22 Models
(Heatpump)

Model : MCM 025DR / MLC 025CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.956	5.047	7.446	4.579	6.937	4.112	6.427	3.645	5.918	3.178	5.306	2.617
	16	8.105	4.591	7.603	4.169	7.101	3.748	6.599	3.326	6.097	2.905	5.495	2.399
24	16	8.105	5.926	7.603	5.504	7.101	5.083	6.599	4.661	6.097	4.240	5.495	3.734
	17	8.253	5.470	7.759	5.094	7.265	4.718	6.770	4.343	6.276	3.967	5.683	3.516
	18	8.402	5.014	7.915	4.684	7.429	4.354	6.942	4.024	6.455	3.694	5.871	3.297
	19	8.551	4.558	8.072	4.274	7.593	3.989	7.113	3.705	6.634	3.420	6.059	3.079
	20	8.700	4.103	8.228	3.868	7.757	3.632	7.286	3.397	6.815	3.161	6.250	2.879
28	18	8.402	6.350	7.915	6.019	7.429	5.689	6.942	5.359	6.455	5.029	5.871	4.633
	19	8.551	5.894	8.072	5.609	7.593	5.325	7.113	5.040	6.634	4.756	6.059	4.414
	20	8.700	5.438	8.228	5.203	7.757	4.967	7.286	4.732	6.815	4.496	6.250	4.214
	21	8.848	4.983	8.386	4.799	7.923	4.615	7.460	4.431	6.997	4.247	6.442	4.026
	22	8.997	4.528	8.543	4.395	8.088	4.262	7.633	4.130	7.179	3.997	6.633	3.838
	23	9.146	4.073	8.700	3.991	8.253	3.910	7.807	3.829	7.361	3.747	6.825	3.650
	24	9.295	3.618	8.857	3.588	8.419	3.558	7.981	3.528	7.543	3.498	7.017	3.461
30	20	8.700	6.106	8.228	5.870	7.757	5.635	7.286	5.400	6.815	5.164	6.250	4.881
	21	8.848	5.651	8.386	5.467	7.923	5.283	7.460	5.098	6.997	4.914	6.442	4.693
	22	8.997	5.196	8.543	5.063	8.088	4.930	7.633	4.797	7.179	4.665	6.633	4.505
	23	9.146	4.740	8.700	4.659	8.253	4.578	7.807	4.496	7.361	4.415	6.825	4.317
	24	9.295	4.285	8.857	4.255	8.419	4.225	7.981	4.195	7.543	4.165	7.017	4.129

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.394	3.394	4.264	4.264	4.554	4.554	7.746	7.746	9.487	9.487	10.357	10.357	11.228	11.228
17	3.305	3.305	4.177	4.177	4.467	4.467	7.490	7.490	9.228	9.228	10.068	10.068	10.908	10.908
19	3.215	3.215	4.089	4.089	4.380	4.380	7.234	7.234	8.969	8.969	9.779	9.779	10.589	10.589
21	3.126	3.126	4.001	4.001	4.293	4.293	6.978	6.978	8.711	8.711	9.490	9.490	10.270	10.270
23	3.124	3.124	3.935	3.935	4.205	4.205	6.841	6.841	8.452	8.452	9.201	9.201	9.950	9.950
25	3.122	3.122	3.869	3.869	4.118	4.118	6.703	6.703	8.193	8.193	8.912	8.912	9.631	9.631
27	3.119	3.119	3.803	3.803	4.031	4.031	6.566	6.566	7.934	7.934	8.623	8.623	9.312	9.312
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 030DR / MLC 028CR
Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	9.047	6.110	8.447	5.509	7.846	4.907	7.245	4.305	6.644	3.704	5.923	2.982
	16	9.053	5.681	8.502	5.129	7.951	4.577	7.401	4.025	6.850	3.472	6.189	2.810
24	16	9.053	7.149	8.502	6.597	7.951	6.045	7.401	5.493	6.850	4.941	6.189	4.278
	17	9.059	6.720	8.558	6.217	8.057	5.714	7.556	5.212	7.055	4.709	6.454	4.106
	18	9.065	6.291	8.614	5.837	8.163	5.384	7.712	4.931	7.261	4.478	6.720	3.934
	19	9.071	5.862	8.670	5.458	8.269	5.054	7.868	4.650	7.467	4.246	6.986	3.761
	20	9.075	5.432	8.710	5.074	8.345	4.716	7.980	4.357	7.616	3.999	7.178	3.569
28	18	9.065	7.759	8.614	7.306	8.163	6.852	7.712	6.399	7.261	5.946	6.720	5.402
	19	9.071	7.330	8.670	6.926	8.269	6.522	7.868	6.118	7.467	5.714	6.986	5.230
	20	9.075	6.900	8.710	6.542	8.345	6.184	7.980	5.825	7.616	5.467	7.178	5.037
	21	9.078	6.470	8.740	6.155	8.402	5.840	8.064	5.525	7.726	5.210	7.320	4.832
	22	9.081	6.040	8.769	5.768	8.458	5.496	8.147	5.224	7.836	4.952	7.463	4.626
	23	9.084	5.611	8.799	5.382	8.515	5.153	8.231	4.924	7.946	4.695	7.605	4.420
	24	9.087	5.181	8.829	4.995	8.572	4.809	8.314	4.623	8.057	4.437	7.748	4.214
30	20	9.075	7.634	8.710	7.276	8.345	6.918	7.980	6.559	7.616	6.201	7.178	5.771
	21	9.078	7.204	8.740	6.889	8.402	6.574	8.064	6.259	7.726	5.944	7.320	5.566
	22	9.081	6.774	8.769	6.502	8.458	6.230	8.147	5.958	7.836	5.686	7.463	5.360
	23	9.084	6.345	8.799	6.116	8.515	5.887	8.231	5.658	7.946	5.429	7.605	5.154
	24	9.087	5.915	8.829	5.729	8.572	5.543	8.314	5.357	8.057	5.171	7.748	4.949

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.605	3.605	4.491	4.491	4.787	4.787	8.036	8.036	9.808	9.808	10.694	10.694	11.580	11.580
17	3.520	3.520	4.402	4.402	4.696	4.696	7.869	7.869	9.541	9.541	10.396	10.396	11.250	11.250
19	3.435	3.435	4.312	4.312	4.605	4.605	7.703	7.703	9.273	9.273	10.097	10.097	10.921	10.921
21	3.350	3.350	4.223	4.223	4.514	4.514	7.536	7.536	9.006	9.006	9.799	9.799	10.592	10.592
23	3.338	3.338	4.152	4.152	4.423	4.423	7.291	7.291	8.739	8.739	9.501	9.501	10.263	10.263
25	3.326	3.326	4.081	4.081	4.332	4.332	7.046	7.046	8.472	8.472	9.203	9.203	9.933	9.933
27	3.315	3.315	4.010	4.010	4.242	4.242	6.800	6.800	8.205	8.205	8.904	8.904	9.604	9.604
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 030DR / MLC 030CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.363	5.245	7.996	4.960	7.629	4.675	7.262	4.390	6.914	4.073	6.550	3.742	6.267	3.484	5.952	3.197
	16	8.923	4.993	8.485	4.712	8.047	4.431	7.610	4.149	7.245	3.844	6.864	3.525	6.568	3.276	6.237	3.000
24	16	8.923	6.321	8.485	6.040	8.047	5.759	7.610	5.477	7.245	5.172	6.864	4.853	6.568	4.604	6.237	4.328
	17	9.483	6.069	8.974	5.792	8.466	5.514	7.958	5.237	7.576	4.942	7.178	4.636	6.868	4.397	6.522	4.130
	18	10.043	5.817	9.464	5.543	8.885	5.270	8.305	4.996	7.907	4.713	7.492	4.418	7.168	4.189	6.807	3.933
	19	10.603	5.565	9.953	5.295	9.303	5.025	8.653	4.755	8.238	4.484	7.805	4.201	7.468	3.981	7.092	3.736
	20	11.164	5.313	10.453	5.043	9.743	4.773	9.032	4.504	8.599	4.245	8.147	3.975	7.795	3.764	7.403	3.530
28	18	10.043	7.145	9.464	6.871	8.885	6.598	8.305	6.324	7.907	6.041	7.492	5.746	7.168	5.517	6.807	5.261
	19	10.603	6.893	9.953	6.623	9.303	6.353	8.653	6.083	8.238	5.812	7.805	5.529	7.468	5.309	7.092	5.064
	20	11.164	6.641	10.453	6.371	9.743	6.101	9.032	5.832	8.599	5.573	8.147	5.302	7.795	5.092	7.403	4.858
	21	11.726	6.388	10.961	6.116	10.196	5.845	9.432	5.573	8.979	5.327	8.507	5.069	8.140	4.869	7.730	4.646
	22	12.288	6.135	11.469	5.862	10.650	5.588	9.831	5.314	9.360	5.080	8.868	4.836	8.485	4.646	8.058	4.434
	23	12.850	5.882	11.977	5.607	11.104	5.331	10.231	5.056	9.740	4.834	9.228	4.603	8.830	4.423	8.385	4.222
	24	13.412	5.630	12.484	5.352	11.557	5.075	10.630	4.797	10.120	4.588	9.588	4.370	9.174	4.199	8.713	4.010
30	20	11.164	7.305	10.453	7.035	9.743	6.765	9.032	6.496	8.599	6.237	8.147	5.966	7.795	5.756	7.403	5.522
	21	11.726	7.052	10.961	6.780	10.196	6.509	9.432	6.237	8.979	5.991	8.507	5.733	8.140	5.533	7.730	5.310
	22	12.288	6.799	11.469	6.526	10.650	6.252	9.831	5.978	9.360	5.744	8.868	5.500	8.485	5.310	8.058	5.098
	23	12.850	6.546	11.977	6.271	11.104	5.995	10.231	5.720	9.740	5.498	9.228	5.267	8.830	5.087	8.385	4.886
	24	13.412	6.294	12.484	6.016	11.557	5.739	10.630	5.461	10.120	5.252	9.588	5.033	9.174	4.863	8.713	4.674
														HIGH AMBIENT			

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.660	5.660	6.604	6.604	6.918	6.918	10.380	10.380	12.268	12.268	13.212	13.212	14.156	14.156
17	5.636	5.636	6.507	6.507	6.797	6.797	10.046	10.046	11.939	11.939	12.847	12.847	13.754	13.754
19	5.613	5.613	6.410	6.410	6.676	6.676	9.712	9.712	11.610	11.610	12.481	12.481	13.352	13.352
21	5.589	5.589	6.314	6.314	6.555	6.555	9.379	9.379	11.281	11.281	12.115	12.115	12.949	12.949
23	5.466	5.466	6.192	6.192	6.434	6.434	9.205	9.205	10.952	10.952	11.750	11.750	12.547	12.547
25	5.342	5.342	6.070	6.070	6.313	6.313	9.032	9.032	10.623	10.623	11.384	11.384	12.145	12.145
27	5.219	5.219	5.948	5.948	6.192	6.192	8.859	8.859	10.294	10.294	11.018	11.018	11.742	11.742
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 040DR / MLC 035CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.044	7.153	10.377	6.524	9.710	5.895	9.042	5.266	8.375	4.637	7.575	3.883
	16	11.217	6.578	10.578	6.012	9.939	5.446	9.300	4.880	8.661	4.314	7.894	3.634
24	16	11.217	8.410	10.578	7.844	9.939	7.278	9.300	6.711	8.661	6.145	7.894	5.466
	17	11.391	7.835	10.779	7.332	10.168	6.828	9.557	6.325	8.946	5.822	8.212	5.218
	18	11.564	7.260	10.981	6.820	10.398	6.379	9.814	5.938	9.231	5.498	8.531	4.969
	19	11.738	6.685	11.182	6.308	10.627	5.930	10.072	5.552	9.516	5.174	8.850	4.721
	20	11.909	6.110	11.370	5.789	10.830	5.469	10.290	5.148	9.751	4.827	9.103	4.442
28	18	11.564	9.092	10.981	8.651	10.398	8.211	9.814	7.770	9.231	7.329	8.531	6.801
	19	11.738	8.517	11.182	8.139	10.627	7.761	10.072	7.383	9.516	7.006	8.850	6.552
	20	11.909	7.942	11.370	7.621	10.830	7.300	10.290	6.979	9.751	6.659	9.103	6.274
	21	12.080	7.366	11.548	7.098	11.016	6.831	10.484	6.563	9.951	6.296	9.313	5.975
	22	12.251	6.790	11.726	6.576	11.202	6.362	10.677	6.148	10.152	5.933	9.522	5.677
	23	12.422	6.214	11.905	6.053	11.387	5.892	10.870	5.732	10.352	5.571	9.731	5.378
	24	12.593	5.638	12.083	5.531	11.573	5.423	11.063	5.316	10.553	5.208	9.941	5.080
30	20	11.909	8.857	11.370	8.537	10.830	8.216	10.290	7.895	9.751	7.574	9.103	7.189
	21	12.080	8.281	11.548	8.014	11.016	7.747	10.484	7.479	9.951	7.212	9.313	6.891
	22	12.251	7.706	11.726	7.491	11.202	7.277	10.677	7.063	10.152	6.849	9.522	6.592
	23	12.422	7.130	11.905	6.969	11.387	6.808	10.870	6.647	10.352	6.487	9.731	6.294
	24	12.593	6.554	12.083	6.446	11.573	6.339	11.063	6.232	10.553	6.124	9.941	5.995

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.495	4.495	5.711	5.711	6.116	6.116	10.573	10.573	13.005	13.005	14.221	14.221	15.436	15.436
17	4.361	4.361	5.588	5.588	5.997	5.997	10.399	10.399	12.649	12.649	13.823	13.823	14.997	14.997
19	4.228	4.228	5.466	5.466	5.879	5.879	10.224	10.224	12.294	12.294	13.426	13.426	14.558	14.558
21	4.094	4.094	5.344	5.344	5.760	5.760	10.049	10.049	11.939	11.939	13.029	13.029	14.119	14.119
23	4.106	4.106	5.258	5.258	5.642	5.642	9.675	9.675	11.583	11.583	12.632	12.632	13.680	13.680
25	4.117	4.117	5.172	5.172	5.523	5.523	9.301	9.301	11.228	11.228	12.234	12.234	13.241	13.241
27	4.129	4.129	5.086	5.086	5.404	5.404	8.927	8.927	10.872	10.872	11.837	11.837	12.802	12.802
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 040DR / MLC 040CR
Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.608	6.753	11.006	6.320	10.404	5.887	9.802	5.454	8.976	4.700	8.148	3.942	7.838	3.660	7.723	3.555
	16	12.449	6.365	11.712	5.951	10.976	5.537	10.239	5.123	9.376	4.396	8.511	3.667	8.187	3.395	8.067	3.294
24	16	12.449	8.457	11.712	8.043	10.976	7.629	10.239	7.214	9.376	6.488	8.511	5.758	8.187	5.486	8.067	5.385
	17	13.290	8.069	12.419	7.674	11.547	7.278	10.675	6.883	9.776	6.184	8.873	5.483	8.537	5.221	8.411	5.124
	18	14.131	7.681	13.125	7.304	12.118	6.928	11.112	6.552	10.176	5.881	9.236	5.208	8.886	4.956	8.755	4.863
	19	14.972	7.293	13.831	6.935	12.690	6.578	11.549	6.220	10.576	5.577	9.599	4.932	9.235	4.691	9.099	4.602
	20	15.818	6.904	14.584	6.557	13.350	6.211	12.116	5.864	11.096	5.251	10.071	4.636	9.689	4.406	9.547	4.321
28	18	14.131	9.772	13.125	9.396	12.118	9.020	11.112	8.643	10.176	7.972	9.236	7.299	8.886	7.048	8.755	6.954
	19	14.972	9.384	13.831	9.027	12.690	8.669	11.549	8.312	10.576	7.669	9.599	7.024	9.235	6.783	9.099	6.693
	20	15.818	8.995	14.584	8.649	13.350	8.302	12.116	7.955	11.096	7.342	10.071	6.727	9.689	6.498	9.547	6.412
	21	16.667	8.606	15.369	8.265	14.070	7.923	12.772	7.582	11.696	7.001	10.616	6.417	10.213	6.199	10.063	6.118
	22	17.516	8.216	16.153	7.880	14.790	7.545	13.427	7.209	12.296	6.659	11.160	6.107	10.737	5.901	10.579	5.825
	23	18.366	7.826	16.938	7.496	15.510	7.166	14.082	6.836	12.896	6.318	11.705	5.797	11.261	5.603	11.096	5.531
	24	19.215	7.437	17.723	7.112	16.230	6.788	14.737	6.463	13.496	5.976	12.250	5.487	11.785	5.304	11.612	5.237
30	20	15.818	10.041	14.584	9.694	13.350	9.348	12.116	9.001	11.096	8.388	10.071	7.773	9.689	7.543	9.547	7.458
	21	16.667	9.651	15.369	9.310	14.070	8.969	12.772	8.628	11.696	8.046	10.616	7.463	10.213	7.245	10.063	7.164
	22	17.516	9.262	16.153	8.926	14.790	8.591	13.427	8.255	12.296	7.705	11.160	7.153	10.737	6.947	10.579	6.870
	23	18.366	8.872	16.938	8.542	15.510	8.212	14.082	7.882	12.896	7.363	11.705	6.843	11.261	6.648	11.096	6.576
	24	19.215	8.482	17.723	8.158	16.230	7.833	14.737	7.509	13.496	7.022	12.250	6.533	11.785	6.350	11.612	6.282
														HIGH AMBIENT			

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18		
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	
15	6.317	6.317	7.559	7.559	7.973	7.973	12.526	12.526	15.009	15.009	16.251	16.251	17.492	17.492	
17	6.244	6.244	7.432	7.432	7.828	7.828	12.356	12.356	14.604	14.604	15.800	15.800	16.995	16.995	
19	6.172	6.172	7.306	7.306	7.684	7.684	12.186	12.186	14.199	14.199	15.348	15.348	16.498	16.498	
21	6.099	6.099	7.180	7.180	7.540	7.540	12.016	12.016	13.793	13.793	14.897	14.897	16.001	16.001	
23	6.006	6.006	7.048	7.048	7.396	7.396	11.552	11.552	13.388	13.388	14.446	14.446	15.503	15.503	
25	5.912	5.912	6.917	6.917	7.251	7.251	11.088	11.088	12.983	12.983	13.995	13.995	15.006	15.006	
27	5.818	5.818	6.785	6.785	7.107	7.107	10.624	10.624	12.578	12.578	13.543	13.543	14.509	14.509	
	FROST MODE														

R22 Models
(Heatpump)

Model : MCM 050DR / MLC 050CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.185	8.048	12.585	7.694	11.986	7.340	11.386	6.986	10.728	6.397	10.125	5.858	9.773	5.543	9.461	5.264
	16	14.507	7.746	13.669	7.349	12.831	6.952	11.993	6.555	11.299	5.991	10.664	5.474	10.293	5.173	9.964	4.905
24	16	14.507	9.658	13.669	9.261	12.831	8.864	11.993	8.467	11.299	7.903	10.664	7.386	10.293	7.084	9.964	6.817
	17	15.830	9.356	14.753	8.916	13.676	8.476	12.599	8.036	11.870	7.497	11.203	7.002	10.813	6.714	10.468	6.459
	18	17.153	9.055	15.837	8.571	14.521	8.088	13.205	7.605	12.442	7.090	11.742	6.619	11.334	6.344	10.972	6.100
	19	18.476	8.753	16.921	8.227	15.366	7.700	13.811	7.174	13.013	6.684	12.281	6.236	11.854	5.974	11.476	5.742
	20	19.807	8.454	18.085	7.907	16.364	7.361	14.642	6.814	13.796	6.345	13.020	5.916	12.567	5.665	12.166	5.443
28	18	17.153	10.966	15.837	10.483	14.521	9.999	13.205	9.516	12.442	9.002	11.742	8.531	11.334	8.256	10.972	8.012
	19	18.476	10.665	16.921	10.138	15.366	9.611	13.811	9.085	13.013	8.596	12.281	8.147	11.854	7.886	11.476	7.654
	20	19.807	10.366	18.085	9.819	16.364	9.272	14.642	8.725	13.796	8.257	13.020	7.827	12.567	7.577	12.166	7.355
	21	21.144	10.069	19.304	9.517	17.463	8.965	15.623	8.413	14.720	7.962	13.892	7.549	13.409	7.308	12.981	7.095
	22	22.481	9.772	20.522	9.215	18.563	8.657	16.603	8.100	15.643	7.668	14.764	7.271	14.250	7.040	13.795	6.835
	23	23.818	9.475	21.740	8.912	19.662	8.350	17.584	7.788	16.567	7.373	15.636	6.994	15.092	6.772	14.610	6.576
	24	25.155	9.178	22.958	8.610	20.761	8.043	18.564	7.475	17.491	7.079	16.508	6.716	15.934	6.504	15.425	6.316
30	20	19.807	11.321	18.085	10.775	16.364	10.228	14.642	9.681	13.796	9.212	13.020	8.783	12.567	8.532	12.166	8.310
	21	21.144	11.025	19.304	10.472	17.463	9.920	15.623	9.368	14.720	8.918	13.892	8.505	13.409	8.264	12.981	8.051
	22	22.481	10.728	20.522	10.170	18.563	9.613	16.603	9.056	15.643	8.623	14.764	8.227	14.250	7.996	13.795	7.791
	23	23.818	10.431	21.740	9.868	19.662	9.306	17.584	8.743	16.567	8.329	15.636	7.949	15.092	7.728	14.610	7.531
	24	25.155	10.134	22.958	9.566	20.761	8.998	18.564	8.431	17.491	8.034	16.508	7.671	15.934	7.459	15.425	7.272
														HIGH AMBIENT			

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	8.064	8.064	9.315	9.315	9.732	9.732	14.318	14.318	16.819	16.819	18.070	18.070	19.320	19.320
17	8.054	8.054	9.186	9.186	9.563	9.563	14.234	14.234	16.369	16.369	17.570	17.570	18.771	18.771
19	8.044	8.044	9.057	9.057	9.395	9.395	14.151	14.151	15.920	15.920	17.071	17.071	18.222	18.222
21	8.033	8.033	8.929	8.929	9.227	9.227	14.068	14.068	15.470	15.470	16.572	16.572	17.673	17.673
23	7.835	7.835	8.753	8.753	9.059	9.059	13.437	13.437	15.020	15.020	16.072	16.072	17.124	17.124
25	7.637	7.637	8.578	8.578	8.891	8.891	12.805	12.805	14.571	14.571	15.573	15.573	16.575	16.575
27	7.439	7.439	8.402	8.402	8.723	8.723	12.174	12.174	14.121	14.121	15.074	15.074	16.026	16.026
	FROST REGION													

R22 Models
(Heatpump)

Model : MCM 062CR / MLC 061CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	16.960	10.123	15.997	9.343	15.033	8.562	14.070	7.782	13.106	7.002	11.950	6.065
	16	17.850	9.479	16.768	8.745	15.685	8.012	14.602	7.279	13.520	6.546	12.220	5.667
24	16	17.850	12.553	16.768	11.820	15.685	11.086	14.602	10.353	13.520	9.620	12.220	8.741
	17	18.741	11.908	17.539	11.222	16.337	10.537	15.135	9.851	13.933	9.165	12.491	8.342
	18	19.631	11.264	18.310	10.625	16.988	9.987	15.667	9.348	14.346	8.709	12.761	7.943
	19	20.521	10.619	19.080	10.028	17.640	9.437	16.200	8.845	14.759	8.254	13.031	7.544
	20	21.416	9.973	19.897	9.420	18.378	8.867	16.859	8.314	15.340	7.760	13.517	7.096
28	18	19.631	14.338	18.310	13.699	16.988	13.061	15.667	12.422	14.346	11.784	12.761	11.017
	19	20.521	13.693	19.080	13.102	17.640	12.511	16.200	11.919	14.759	11.328	13.031	10.619
	20	21.416	13.048	19.897	12.494	18.378	11.941	16.859	11.388	15.340	10.834	13.517	10.170
	21	22.314	12.401	20.743	11.880	19.173	11.358	17.602	10.836	16.031	10.315	14.146	9.689
	22	23.212	11.755	21.590	11.265	19.968	10.775	18.345	10.285	16.723	9.796	14.776	9.208
	23	24.110	11.108	22.436	10.650	20.762	10.192	19.088	9.734	17.414	9.276	15.406	8.727
	24	25.009	10.462	23.283	10.036	21.557	9.609	19.832	9.183	18.106	8.757	16.035	8.245
30	20	21.416	14.585	19.897	14.031	18.378	13.478	16.859	12.925	15.340	12.371	13.517	11.707
	21	22.314	13.938	20.743	13.417	19.173	12.895	17.602	12.374	16.031	11.852	14.146	11.226
	22	23.212	13.292	21.590	12.802	19.968	12.312	18.345	11.822	16.723	11.333	14.776	10.745
	23	24.110	12.645	22.436	12.187	20.762	11.729	19.088	11.271	17.414	10.813	15.406	10.264
	24	25.009	11.999	23.283	11.573	21.557	11.146	19.832	10.720	18.106	10.294	16.035	9.782

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	9.170	9.170	10.810	10.810	11.357	11.357	17.371	17.371	20.651	20.651	22.291	22.291	23.931	23.931
17	9.105	9.105	10.643	10.643	11.155	11.155	17.051	17.051	20.095	20.095	21.673	21.673	23.251	23.251
19	9.040	9.040	10.475	10.475	10.954	10.954	16.732	16.732	19.540	19.540	21.055	21.055	22.571	22.571
21	8.974	8.974	10.308	10.308	10.752	10.752	16.413	16.413	18.985	18.985	20.437	20.437	21.890	21.890
23	8.800	8.800	10.113	10.113	10.551	10.551	15.865	15.865	18.429	18.429	19.820	19.820	21.210	21.210
25	8.626	8.626	9.918	9.918	10.349	10.349	15.318	15.318	17.874	17.874	19.202	19.202	20.530	20.530
27	8.452	8.452	9.724	9.724	10.148	10.148	14.770	14.770	17.319	17.319	18.584	18.584	19.850	19.850
	FROST REGION													

R407C Models
(Cooling only)

Model : MCM 020D / M4LC 020B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.548	3.120	5.241	2.873	4.933	2.627	4.626	2.380	4.318	2.134	3.949	1.838
	16	5.769	2.830	5.443	2.621	5.118	2.413	4.793	2.204	4.468	1.996	4.078	1.745
24	16	5.769	3.943	5.443	3.734	5.118	3.526	4.793	3.317	4.468	3.109	4.078	2.859
	17	5.989	3.653	5.646	3.483	5.303	3.312	4.960	3.141	4.618	2.970	4.206	2.766
	18	6.209	3.364	5.849	3.231	5.488	3.098	5.128	2.965	4.767	2.832	4.335	2.673
	19	6.430	3.074	6.051	2.979	5.673	2.884	5.295	2.789	4.917	2.694	4.464	2.580
	20	6.650	2.783	6.258	2.713	5.865	2.643	5.473	2.573	5.080	2.503	4.610	2.419
28	18	6.209	4.477	5.849	4.344	5.488	4.211	5.128	4.078	4.767	3.945	4.335	3.786
	19	6.430	4.187	6.051	4.092	5.673	3.997	5.295	3.902	4.917	3.807	4.464	3.693
	20	6.650	3.896	6.258	3.826	5.865	3.756	5.473	3.686	5.080	3.616	4.610	3.532
	21	6.871	3.604	6.467	3.550	6.062	3.497	5.657	3.443	5.253	3.390	4.767	3.326
	22	7.092	3.312	6.675	3.275	6.258	3.238	5.841	3.201	5.425	3.164	4.924	3.120
	23	7.313	3.019	6.884	2.999	6.455	2.979	6.026	2.958	5.597	2.938	5.082	2.914
	24	7.534	2.727	7.093	2.723	6.651	2.720	6.210	2.716	5.769	2.712	5.239	2.707
30	20	6.650	4.453	6.258	4.383	5.865	4.313	5.473	4.243	5.080	4.173	4.610	4.089
	21	6.871	4.160	6.467	4.107	6.062	4.053	5.657	4.000	5.253	3.947	4.767	3.882
	22	7.092	3.868	6.675	3.831	6.258	3.794	5.841	3.757	5.425	3.721	4.924	3.676
	23	7.313	3.576	6.884	3.556	6.455	3.535	6.026	3.515	5.597	3.495	5.082	3.470
	24	7.534	3.284	7.093	3.280	6.651	3.276	6.210	3.272	5.769	3.269	5.239	3.264

Model : MCM 025D / M4LC 025B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.096	3.504	5.795	3.273	5.494	3.042	5.193	2.811	4.891	2.580	4.530	2.302
	16	6.415	3.230	6.080	3.029	5.746	2.828	5.411	2.627	5.077	2.426	4.675	2.185
24	16	6.415	4.384	6.080	4.183	5.746	3.982	5.411	3.781	5.077	3.580	4.675	3.339
	17	6.733	4.110	6.366	3.939	5.998	3.768	5.630	3.597	5.262	3.427	4.821	3.222
	18	7.052	3.835	6.651	3.695	6.250	3.554	5.849	3.413	5.448	3.273	4.966	3.104
	19	7.370	3.561	6.936	3.450	6.502	3.340	6.067	3.229	5.633	3.119	5.112	2.986
	20	7.689	3.285	7.226	3.192	6.763	3.099	6.299	3.006	5.836	2.913	5.280	2.801
28	18	7.052	4.990	6.651	4.849	6.250	4.709	5.849	4.568	5.448	4.427	4.966	4.259
	19	7.370	4.715	6.936	4.605	6.502	4.494	6.067	4.384	5.633	4.273	5.112	4.141
	20	7.689	4.439	7.226	4.346	6.763	4.253	6.299	4.160	5.836	4.067	5.280	3.956
	21	8.008	4.162	7.519	4.078	7.030	3.994	6.540	3.910	6.051	3.826	5.463	3.726
	22	8.328	3.885	7.812	3.810	7.297	3.735	6.781	3.660	6.265	3.585	5.647	3.496
	23	8.647	3.608	8.105	3.542	7.564	3.476	7.022	3.410	6.480	3.344	5.830	3.265
	24	8.966	3.331	8.398	3.274	7.831	3.217	7.263	3.160	6.695	3.104	6.013	3.035
30	20	7.689	5.016	7.226	4.924	6.763	4.831	6.299	4.738	5.836	4.645	5.280	4.533
	21	8.008	4.739	7.519	4.655	7.030	4.572	6.540	4.488	6.051	4.404	5.463	4.303
	22	8.328	4.462	7.812	4.387	7.297	4.312	6.781	4.238	6.265	4.163	5.647	4.073
	23	8.647	4.185	8.105	4.119	7.564	4.053	7.022	3.988	6.480	3.922	5.830	3.843
	24	8.966	3.908	8.398	3.851	7.831	3.794	7.263	3.738	6.695	3.681	6.013	3.613

R407C Models
(Cooling only)

Model : MCM 030D / M4LC 030C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.391	5.170	8.022	4.879	7.653	4.587	7.284	4.295	6.915	4.004	6.472	3.654
	16	8.916	4.900	8.486	4.618	8.057	4.336	7.627	4.054	7.197	3.771	6.681	3.433
24	16	8.916	6.300	8.486	6.018	8.057	5.736	7.627	5.454	7.197	5.172	6.681	4.833
	17	9.442	6.030	8.951	5.758	8.460	5.485	7.970	5.212	7.479	4.939	6.890	4.612
	18	9.967	5.760	9.416	5.497	8.864	5.234	8.313	4.970	7.761	4.707	7.099	4.391
	19	10.493	5.490	9.880	5.236	9.268	4.982	8.655	4.728	8.043	4.474	7.308	4.170
	20	11.019	5.220	10.351	4.969	9.684	4.719	9.016	4.468	8.349	4.218	7.548	3.917
28	18	9.967	7.161	9.416	6.897	8.864	6.634	8.313	6.370	7.761	6.107	7.099	5.791
	19	10.493	6.891	9.880	6.637	9.268	6.383	8.655	6.129	8.043	5.875	7.308	5.570
	20	11.019	6.620	10.351	6.369	9.684	6.119	9.016	5.869	8.349	5.618	7.548	5.317
	21	11.546	6.349	10.827	6.098	10.108	5.847	9.390	5.596	8.671	5.345	7.809	5.044
	22	12.072	6.078	11.302	5.826	10.533	5.575	9.763	5.324	8.993	5.073	8.069	4.771
	23	12.599	5.806	11.778	5.555	10.957	5.303	10.136	5.052	9.315	4.800	8.330	4.498
	24	13.126	5.535	12.253	5.283	11.381	5.031	10.509	4.779	9.637	4.527	8.590	4.225
30	20	11.019	7.320	10.351	7.070	9.684	6.819	9.016	6.569	8.349	6.318	7.548	6.018
	21	11.546	7.049	10.827	6.798	10.108	6.547	9.390	6.296	8.671	6.045	7.809	5.744
	22	12.072	6.778	11.302	6.527	10.533	6.275	9.763	6.024	8.993	5.773	8.069	5.471
	23	12.599	6.507	11.778	6.255	10.957	6.003	10.136	5.752	9.315	5.500	8.330	5.198
	24	13.126	6.235	12.253	5.983	11.381	5.731	10.509	5.479	9.637	5.227	8.590	4.925

Model : MCM 040D / M4LC 035C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.033	7.153	10.366	6.524	9.700	5.895	9.033	5.266	8.367	4.637	7.567	3.883
	16	11.206	6.578	10.568	6.012	9.929	5.446	9.290	4.880	8.652	4.314	7.886	3.634
24	16	11.206	8.410	10.568	7.844	9.929	7.278	9.290	6.711	8.652	6.145	7.886	5.466
	17	11.379	7.835	10.769	7.332	10.158	6.828	9.547	6.325	8.937	5.822	8.204	5.218
	18	11.553	7.260	10.970	6.820	10.387	6.379	9.805	5.938	9.222	5.498	8.523	4.969
	19	11.726	6.685	11.171	6.308	10.616	5.930	10.062	5.552	9.507	5.174	8.841	4.721
	20	11.898	6.110	11.358	5.789	10.819	5.469	10.280	5.148	9.741	4.827	9.094	4.442
28	18	11.553	9.092	10.970	8.651	10.387	8.211	9.805	7.770	9.222	7.329	8.523	6.801
	19	11.726	8.517	11.171	8.139	10.616	7.761	10.062	7.383	9.507	7.006	8.841	6.552
	20	11.898	7.942	11.358	7.621	10.819	7.300	10.280	6.979	9.741	6.659	9.094	6.274
	21	12.068	7.366	11.537	7.098	11.005	6.831	10.473	6.563	9.941	6.296	9.303	5.975
	22	12.239	6.790	11.715	6.576	11.190	6.362	10.666	6.148	10.142	5.933	9.512	5.677
	23	12.410	6.214	11.893	6.053	11.376	5.892	10.859	5.732	10.342	5.571	9.722	5.378
	24	12.581	5.638	12.071	5.531	11.561	5.423	11.052	5.316	10.542	5.208	9.931	5.080
30	20	11.898	8.857	11.358	8.537	10.819	8.216	10.280	7.895	9.741	7.574	9.094	7.189
	21	12.068	8.281	11.537	8.014	11.005	7.747	10.473	7.479	9.941	7.212	9.303	6.891
	22	12.239	7.706	11.715	7.491	11.190	7.277	10.666	7.063	10.142	6.849	9.512	6.592
	23	12.410	7.130	11.893	6.969	11.376	6.808	10.859	6.647	10.342	6.487	9.722	6.294
	24	12.581	6.554	12.071	6.446	11.561	6.339	11.052	6.232	10.542	6.124	9.931	5.995

R407C Models
(Cooling only)

Model : MCM 040D / M4LC 040C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.251	6.587	10.650	6.132	10.049	5.677	9.447	5.222	8.846	4.767	8.125	4.221
	16	11.890	6.157	11.204	5.750	10.518	5.344	9.831	4.937	9.145	4.530	8.322	4.043
24	16	11.890	8.240	11.204	7.833	10.518	7.427	9.831	7.020	9.145	6.614	8.322	6.126
	17	12.528	7.810	11.757	7.452	10.986	7.094	10.216	6.735	9.445	6.377	8.519	5.947
	18	13.167	7.380	12.311	7.070	11.455	6.760	10.600	6.450	9.744	6.141	8.717	5.769
	19	13.805	6.950	12.865	6.689	11.924	6.427	10.984	6.166	10.043	5.904	8.914	5.590
	20	14.447	6.517	13.445	6.278	12.444	6.039	11.443	5.799	10.441	5.560	9.239	5.273
28	18	13.167	9.464	12.311	9.154	11.455	8.844	10.600	8.534	9.744	8.224	8.717	7.852
	19	13.805	9.034	12.865	8.772	11.924	8.511	10.984	8.249	10.043	7.987	8.914	7.673
	20	14.447	8.601	13.445	8.361	12.444	8.122	11.443	7.883	10.441	7.643	9.239	7.356
	21	15.090	8.166	14.044	7.931	12.998	7.697	11.951	7.463	10.905	7.228	9.650	6.947
	22	15.733	7.731	14.642	7.501	13.551	7.272	12.460	7.042	11.369	6.813	10.060	6.537
	23	16.376	7.296	15.241	7.071	14.105	6.846	12.969	6.622	11.834	6.397	10.471	6.128
	24	17.020	6.860	15.839	6.641	14.659	6.421	13.478	6.202	12.298	5.982	10.881	5.719
30	20	14.447	9.642	13.445	9.403	12.444	9.164	11.443	8.924	10.441	8.685	9.239	8.398
	21	15.090	9.207	14.044	8.973	12.998	8.739	11.951	8.504	10.905	8.270	9.650	7.989
	22	15.733	8.772	14.642	8.543	13.551	8.313	12.460	8.084	11.369	7.854	10.060	7.579
	23	16.376	8.337	15.241	8.113	14.105	7.888	12.969	7.664	11.834	7.439	10.471	7.170
	24	17.020	7.902	15.839	7.683	14.659	7.463	13.478	7.243	12.298	7.024	10.881	6.760

Model : MCM 050D / M4LC 050C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.921	8.402	13.287	8.036	12.652	7.669	12.018	7.302	11.384	6.935	10.622	6.495
	16	15.046	8.034	14.235	7.657	13.425	7.280	12.614	6.903	11.803	6.526	10.830	6.073
24	16	15.046	10.091	14.235	9.713	13.425	9.336	12.614	8.959	11.803	8.582	10.830	8.130
	17	16.171	9.722	15.184	9.335	14.197	8.947	13.210	8.560	12.222	8.173	11.038	7.708
	18	17.296	9.353	16.133	8.956	14.969	8.558	13.805	8.161	12.642	7.763	11.245	7.286
	19	18.422	8.985	17.081	8.577	15.741	8.169	14.401	7.761	13.061	7.353	11.453	6.864
	20	19.552	8.616	18.080	8.196	16.608	7.777	15.136	7.357	13.663	6.937	11.897	6.433
28	18	17.296	11.410	16.133	11.013	14.969	10.615	13.805	10.217	12.642	9.820	11.245	9.343
	19	18.422	11.042	17.081	10.634	15.741	10.226	14.401	9.818	13.061	9.410	11.453	8.920
	20	19.552	10.673	18.080	10.253	16.608	9.833	15.136	9.414	13.663	8.994	11.897	8.490
	21	20.686	10.304	19.111	9.871	17.537	9.439	15.962	9.006	14.388	8.573	12.498	8.054
	22	21.820	9.935	20.143	9.490	18.466	9.044	16.789	8.598	15.112	8.153	13.100	7.618
	23	22.954	9.566	21.175	9.108	19.395	8.649	17.616	8.191	15.837	7.732	13.701	7.182
	24	24.088	9.197	22.206	8.726	20.324	8.254	18.443	7.783	16.561	7.311	14.303	6.745
30	20	19.552	11.701	18.080	11.281	16.608	10.862	15.136	10.442	13.663	10.022	11.897	9.518
	21	20.686	11.332	19.111	10.900	17.537	10.467	15.962	10.034	14.388	9.601	12.498	9.082
	22	21.820	10.964	20.143	10.518	18.466	10.072	16.789	9.627	15.112	9.181	13.100	8.646
	23	22.954	10.595	21.175	10.136	19.395	9.677	17.616	9.219	15.837	8.760	13.701	8.210
	24	24.088	10.226	22.206	9.754	20.324	9.283	18.443	8.811	16.561	8.340	14.303	7.774

R407C Models
(Cooling only)

Model : MCM 062C / M4LC 061C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	16.484	9.732	15.543	8.959	14.601	8.186	13.660	7.413	12.719	6.640	11.590	5.712
	16	17.210	9.002	16.191	8.304	15.172	7.605	14.153	6.907	13.133	6.209	11.910	5.371
24	16	17.210	12.076	16.191	11.378	15.172	10.680	14.153	9.981	13.133	9.283	11.910	8.445
	17	17.937	11.346	16.840	10.722	15.742	10.099	14.645	9.475	13.548	8.852	12.231	8.104
	18	18.663	10.615	17.488	10.067	16.313	9.518	15.137	8.970	13.962	8.421	12.551	7.763
	19	19.390	9.885	18.136	9.411	16.883	8.937	15.630	8.464	14.376	7.990	12.872	7.422
	20	20.119	9.152	18.812	8.733	17.505	8.315	16.197	7.896	14.890	7.478	13.321	6.976
28	18	18.663	13.689	17.488	13.141	16.313	12.592	15.137	12.044	13.962	11.495	12.551	10.837
	19	19.390	12.959	18.136	12.485	16.883	12.011	15.630	11.538	14.376	11.064	12.872	10.496
	20	20.119	12.226	18.812	11.807	17.505	11.389	16.197	10.970	14.890	10.552	13.321	10.050
	21	20.850	11.492	19.505	11.115	18.161	10.739	16.816	10.362	15.471	9.986	13.857	9.534
	22	21.582	10.757	20.199	10.423	18.816	10.088	17.434	9.754	16.051	9.419	14.392	9.018
	23	22.313	10.023	20.893	9.730	19.472	9.438	18.052	9.146	16.632	8.853	14.927	8.502
	24	23.044	9.288	21.586	9.038	20.128	8.788	18.670	8.537	17.212	8.287	15.462	7.986
30	20	20.119	13.763	18.812	13.345	17.505	12.926	16.197	12.508	14.890	12.089	13.321	11.587
	21	20.850	13.029	19.505	12.652	18.161	12.276	16.816	11.899	15.471	11.523	13.857	11.071
	22	21.582	12.294	20.199	11.960	18.816	11.625	17.434	11.291	16.051	10.957	14.392	10.555
	23	22.313	11.560	20.893	11.267	19.472	10.975	18.052	10.683	16.632	10.390	14.927	10.039
	24	23.044	10.826	21.586	10.575	20.128	10.325	18.670	10.074	17.212	9.824	15.462	9.524

R407C Models
(Heatpump)

Model : MCM 020DR / M4LC 020BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.066	2.935	4.829	2.773	4.592	2.610	4.355	2.448	4.118	2.285	3.834	2.090
	16	5.451	2.771	5.156	2.618	4.860	2.464	4.564	2.311	4.269	2.157	3.914	1.973
24	16	5.451	3.680	5.156	3.526	4.860	3.373	4.564	3.219	4.269	3.066	3.914	2.881
	17	5.836	3.516	5.482	3.371	5.128	3.227	4.773	3.082	4.419	2.937	3.994	2.764
	18	6.222	3.352	5.809	3.216	5.396	3.080	4.983	2.945	4.570	2.809	4.074	2.646
	19	6.607	3.188	6.135	3.061	5.664	2.934	5.192	2.807	4.720	2.681	4.154	2.528
	20	6.994	3.023	6.478	2.898	5.963	2.774	5.447	2.649	4.931	2.524	4.312	2.374
28	18	6.222	4.261	5.809	4.125	5.396	3.989	4.983	3.853	4.570	3.718	4.074	3.555
	19	6.607	4.097	6.135	3.970	5.664	3.843	5.192	3.716	4.720	3.589	4.154	3.437
	20	6.994	3.932	6.478	3.807	5.963	3.682	5.447	3.558	4.931	3.433	4.312	3.283
	21	7.382	3.767	6.832	3.639	6.282	3.512	5.733	3.385	5.183	3.258	4.523	3.105
	22	7.770	3.601	7.186	3.472	6.602	3.342	6.018	3.212	5.434	3.082	4.733	2.927
	23	8.158	3.436	7.540	3.304	6.922	3.172	6.304	3.039	5.686	2.907	4.944	2.749
	24	8.547	3.271	7.894	3.136	7.242	3.001	6.589	2.867	5.937	2.732	5.154	2.571
30	20	6.994	4.386	6.478	4.261	5.963	4.137	5.447	4.012	4.931	3.887	4.312	3.737
	21	7.382	4.221	6.832	4.094	6.282	3.966	5.733	3.839	5.183	3.712	4.523	3.559
	22	7.770	4.056	7.186	3.926	6.602	3.796	6.018	3.667	5.434	3.537	4.733	3.381
	23	8.158	3.890	7.540	3.758	6.922	3.626	6.304	3.494	5.686	3.362	4.944	3.203
	24	8.547	3.725	7.894	3.590	7.242	3.456	6.589	3.321	5.937	3.187	5.154	3.025

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.111	3.111	3.407	3.407	3.505	3.505	4.589	4.589	5.180	5.180	5.476	5.476	5.771	5.771
17	3.153	3.153	3.375	3.375	3.449	3.449	4.915	4.915	5.044	5.044	5.326	5.326	5.607	5.607
19	3.195	3.195	3.344	3.344	3.393	3.393	5.242	5.242	4.909	4.909	5.176	5.176	5.444	5.444
21	3.238	3.238	3.313	3.313	3.338	3.338	5.569	5.569	4.773	4.773	5.026	5.026	5.280	5.280
23	3.117	3.117	3.241	3.241	3.282	3.282	5.004	5.004	4.637	4.637	4.877	4.877	5.116	5.116
25	2.997	2.997	3.169	3.169	3.226	3.226	4.440	4.440	4.502	4.502	4.727	4.727	4.952	4.952
27	2.876	2.876	3.097	3.097	3.170	3.170	3.875	3.875	4.366	4.366	4.577	4.577	4.788	4.788
	FROST REGION													

R407C Models
(Heatpump)

Model : MCM 025DR / M4LC 025BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.345	2.689	5.180	2.646	5.016	2.603	4.851	2.560	4.687	2.517	4.489	2.465
	16	5.690	2.532	5.498	2.500	5.306	2.468	5.114	2.436	4.922	2.404	4.692	2.365
24	16	5.690	3.539	5.498	3.507	5.306	3.474	5.114	3.442	4.922	3.410	4.692	3.372
	17	6.034	3.382	5.815	3.361	5.596	3.339	5.377	3.318	5.158	3.297	4.895	3.271
	18	6.379	3.225	6.133	3.215	5.886	3.205	5.640	3.194	5.394	3.184	5.098	3.171
	19	6.724	3.069	6.450	3.069	6.177	3.070	5.903	3.070	5.629	3.070	5.301	3.071
	20	7.067	2.910	6.755	2.903	6.444	2.896	6.132	2.889	5.820	2.882	5.446	2.873
28	18	6.379	4.232	6.133	4.222	5.886	4.211	5.640	4.201	5.394	4.190	5.098	4.178
	19	6.724	4.075	6.450	4.076	6.177	4.076	5.903	4.077	5.629	4.077	5.301	4.077
	20	7.067	3.917	6.755	3.909	6.444	3.902	6.132	3.895	5.820	3.888	5.446	3.880
	21	7.410	3.756	7.052	3.729	6.695	3.703	6.338	3.676	5.981	3.649	5.552	3.617
	22	7.752	3.596	7.350	3.549	6.947	3.503	6.544	3.456	6.141	3.410	5.658	3.354
	23	8.095	3.436	7.647	3.369	7.198	3.303	6.750	3.237	6.302	3.171	5.764	3.091
	24	8.437	3.275	7.944	3.189	7.450	3.103	6.956	3.017	6.462	2.931	5.870	2.828
30	20	7.067	4.420	6.755	4.413	6.444	4.406	6.132	4.399	5.820	4.391	5.446	4.383
	21	7.410	4.260	7.052	4.233	6.695	4.206	6.338	4.179	5.981	4.152	5.552	4.120
	22	7.752	4.099	7.350	4.053	6.947	4.006	6.544	3.960	6.141	3.913	5.658	3.857
	23	8.095	3.939	7.647	3.873	7.198	3.806	6.750	3.740	6.302	3.674	5.764	3.594
	24	8.437	3.779	7.944	3.693	7.450	3.607	6.956	3.521	6.462	3.435	5.870	3.331

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.814	3.814	4.306	4.306	4.470	4.470	6.271	6.271	7.254	7.254	7.745	7.745	8.236	8.236
17	3.834	3.834	4.255	4.255	4.395	4.395	6.525	6.525	7.061	7.061	7.532	7.532	8.002	8.002
19	3.854	3.854	4.204	4.204	4.320	4.320	6.780	6.780	6.869	6.869	7.319	7.319	7.768	7.768
21	3.874	3.874	4.153	4.153	4.246	4.246	7.034	7.034	6.676	6.676	7.105	7.105	7.534	7.534
23	3.757	3.757	4.067	4.067	4.171	4.171	6.457	6.457	6.484	6.484	6.892	6.892	7.300	7.300
25	3.639	3.639	3.982	3.982	4.096	4.096	5.879	5.879	6.292	6.292	6.679	6.679	7.066	7.066
27	3.522	3.522	3.897	3.897	4.022	4.022	5.302	5.302	6.099	6.099	6.466	6.466	6.832	6.832
	FROST REGION													

R407C Models
(Heatpump)

Model : MCM 030DR / M4LC 030CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.084	4.997	7.729	4.721	7.375	4.445	7.020	4.170	6.665	3.894	6.239	3.563
	16	8.626	4.753	8.202	4.481	7.779	4.209	7.356	3.937	6.933	3.665	6.425	3.338
24	16	8.626	6.081	8.202	5.809	7.779	5.537	7.356	5.265	6.933	4.993	6.425	4.666
	17	9.167	5.837	8.675	5.569	8.184	5.300	7.692	5.032	7.201	4.764	6.611	4.442
	18	9.708	5.593	9.148	5.329	8.588	5.064	8.029	4.799	7.469	4.535	6.797	4.217
	19	10.249	5.350	9.621	5.089	8.993	4.828	8.365	4.567	7.737	4.306	6.983	3.992
	20	10.792	5.106	10.105	4.845	9.418	4.584	8.731	4.324	8.044	4.063	7.220	3.750
28	18	9.708	6.921	9.148	6.657	8.588	6.392	8.029	6.127	7.469	5.863	6.797	5.545
	19	10.249	6.678	9.621	6.417	8.993	6.156	8.365	5.895	7.737	5.634	6.983	5.320
	20	10.792	6.434	10.105	6.173	9.418	5.912	8.731	5.652	8.044	5.391	7.220	5.078
	21	11.335	6.189	10.596	5.927	9.856	5.664	9.117	5.402	8.378	5.139	7.491	4.824
	22	11.878	5.945	11.087	5.681	10.295	5.416	9.503	5.152	8.712	4.887	7.762	4.570
	23	12.421	5.701	11.577	5.434	10.734	5.168	9.890	4.902	9.046	4.635	8.033	4.316
	24	12.965	5.456	12.068	5.188	11.172	4.920	10.276	4.652	9.379	4.384	8.304	4.062
30	20	10.792	7.098	10.105	6.837	9.418	6.576	8.731	6.316	8.044	6.055	7.220	5.742
	21	11.335	6.853	10.596	6.591	9.856	6.328	9.117	6.066	8.378	5.803	7.491	5.488
	22	11.878	6.609	11.087	6.345	10.295	6.080	9.503	5.816	8.712	5.551	7.762	5.234
	23	12.421	6.365	11.577	6.098	10.734	5.832	9.890	5.566	9.046	5.299	8.033	4.980
	24	12.965	6.120	12.068	5.852	11.172	5.584	10.276	5.316	9.379	5.048	8.304	4.726

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.483	5.483	6.397	6.397	6.702	6.702	10.056	10.056	11.885	11.885	12.799	12.799	13.714	13.714
17	5.460	5.460	6.304	6.304	6.585	6.585	9.732	9.732	11.566	11.566	12.445	12.445	13.324	13.324
19	5.437	5.437	6.210	6.210	6.467	6.467	9.409	9.409	11.247	11.247	12.091	12.091	12.935	12.935
21	5.414	5.414	6.116	6.116	6.350	6.350	9.086	9.086	10.929	10.929	11.737	11.737	12.545	12.545
23	5.295	5.295	5.998	5.998	6.233	6.233	8.918	8.918	10.610	10.610	11.383	11.383	12.155	12.155
25	5.175	5.175	5.880	5.880	6.115	6.115	8.750	8.750	10.291	10.291	11.028	11.028	11.765	11.765
27	5.055	5.055	5.762	5.762	5.998	5.998	8.582	8.582	9.973	9.973	10.674	10.674	11.375	11.375
	FROST REGION													

R407C Models
(Heatpump)

Model : MCM 040DR / M4LC 035CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.044	7.153	10.377	6.524	9.710	5.895	9.042	5.266	8.375	4.637	7.575	3.883
	16	11.217	6.578	10.578	6.012	9.939	5.446	9.300	4.880	8.661	4.314	7.894	3.634
24	16	11.217	8.410	10.578	7.844	9.939	7.278	9.300	6.711	8.661	6.145	7.894	5.466
	17	11.391	7.835	10.779	7.332	10.168	6.828	9.557	6.325	8.946	5.822	8.212	5.218
	18	11.564	7.260	10.981	6.820	10.398	6.379	9.814	5.938	9.231	5.498	8.531	4.969
	19	11.738	6.685	11.182	6.308	10.627	5.930	10.072	5.552	9.516	5.174	8.850	4.721
	20	11.909	6.110	11.370	5.789	10.830	5.469	10.290	5.148	9.751	4.827	9.103	4.442
28	18	11.564	9.092	10.981	8.651	10.398	8.211	9.814	7.770	9.231	7.329	8.531	6.801
	19	11.738	8.517	11.182	8.139	10.627	7.761	10.072	7.383	9.516	7.006	8.850	6.552
	20	11.909	7.942	11.370	7.621	10.830	7.300	10.290	6.979	9.751	6.659	9.103	6.274
	21	12.080	7.366	11.548	7.098	11.016	6.831	10.484	6.563	9.951	6.296	9.313	5.975
	22	12.251	6.790	11.726	6.576	11.202	6.362	10.677	6.148	10.152	5.933	9.522	5.677
	23	12.422	6.214	11.905	6.053	11.387	5.892	10.870	5.732	10.352	5.571	9.731	5.378
	24	12.593	5.638	12.083	5.531	11.573	5.423	11.063	5.316	10.553	5.208	9.941	5.080
30	20	11.909	8.857	11.370	8.537	10.830	8.216	10.290	7.895	9.751	7.574	9.103	7.189
	21	12.080	8.281	11.548	8.014	11.016	7.747	10.484	7.479	9.951	7.212	9.313	6.891
	22	12.251	7.706	11.726	7.491	11.202	7.277	10.677	7.063	10.152	6.849	9.522	6.592
	23	12.422	7.130	11.905	6.969	11.387	6.808	10.870	6.647	10.352	6.487	9.731	6.294
	24	12.593	6.554	12.083	6.446	11.573	6.339	11.063	6.232	10.553	6.124	9.941	5.995

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.495	4.495	5.711	5.711	6.116	6.116	10.573	10.573	13.005	13.005	14.221	14.221	15.436	15.436
17	4.361	4.361	5.588	5.588	5.997	5.997	10.399	10.399	12.649	12.649	13.823	13.823	14.997	14.997
19	4.228	4.228	5.466	5.466	5.879	5.879	10.224	10.224	12.294	12.294	13.426	13.426	14.558	14.558
21	4.094	4.094	5.344	5.344	5.760	5.760	10.049	10.049	11.939	11.939	13.029	13.029	14.119	14.119
23	4.106	4.106	5.258	5.258	5.642	5.642	9.675	9.675	11.583	11.583	12.632	12.632	13.680	13.680
25	4.117	4.117	5.172	5.172	5.523	5.523	9.301	9.301	11.228	11.228	12.234	12.234	13.241	13.241
27	4.129	4.129	5.086	5.086	5.404	5.404	8.927	8.927	10.872	10.872	11.837	11.837	12.802	12.802
	FRSOT REGION													

R407C Models
(Heatpump)

Model : MCM 040DR / M4LC 040CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	11.318	6.497	10.731	6.075	10.144	5.653	9.557	5.230	8.970	4.808	8.266	4.302
	16	12.138	6.119	11.420	5.715	10.701	5.311	9.983	4.907	9.264	4.504	8.402	4.019
24	16	12.138	8.210	11.420	7.806	10.701	7.403	9.983	6.999	9.264	6.595	8.402	6.111
	17	12.958	7.832	12.108	7.446	11.258	7.061	10.409	6.676	9.559	6.290	8.539	5.828
	18	13.778	7.454	12.797	7.087	11.815	6.720	10.834	6.353	9.853	5.986	8.676	5.545
	19	14.598	7.075	13.485	6.727	12.373	6.378	11.260	6.030	10.147	5.681	8.812	5.263
	20	15.422	6.696	14.219	6.358	13.017	6.020	11.814	5.682	10.611	5.344	9.167	4.939
28	18	13.778	9.545	12.797	9.178	11.815	8.811	10.834	8.444	9.853	8.077	8.676	7.637
	19	14.598	9.167	13.485	8.818	12.373	8.470	11.260	8.121	10.147	7.773	8.812	7.354
	20	15.422	8.787	14.219	8.449	13.017	8.111	11.814	7.774	10.611	7.436	9.167	7.030
	21	16.250	8.407	14.984	8.075	13.718	7.742	12.452	7.410	11.186	7.077	9.667	6.678
	22	17.079	8.028	15.749	7.700	14.420	7.373	13.091	7.046	11.762	6.719	10.167	6.326
	23	17.907	7.648	16.514	7.326	15.122	7.004	13.730	6.682	12.338	6.361	10.667	5.975
	24	18.735	7.268	17.279	6.951	15.824	6.635	14.369	6.319	12.914	6.002	11.167	5.623
30	20	15.422	9.833	14.219	9.495	13.017	9.157	11.814	8.819	10.611	8.481	9.167	8.076
	21	16.250	9.453	14.984	9.121	13.718	8.788	12.452	8.456	11.186	8.123	9.667	7.724
	22	17.079	9.073	15.749	8.746	14.420	8.419	13.091	8.092	11.762	7.765	10.167	7.372
	23	17.907	8.693	16.514	8.372	15.122	8.050	13.730	7.728	12.338	7.406	10.667	7.020
	24	18.735	8.314	17.279	7.997	15.824	7.681	14.369	7.364	12.914	7.048	11.167	6.668

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	6.317	6.317	7.559	7.559	7.973	7.973	12.526	12.526	15.009	15.009	16.251	16.251	17.492	17.492
17	6.244	6.244	7.432	7.432	7.828	7.828	12.356	12.356	14.604	14.604	15.800	15.800	16.995	16.995
19	6.172	6.172	7.306	7.306	7.684	7.684	12.186	12.186	14.199	14.199	15.348	15.348	16.498	16.498
21	6.099	6.099	7.180	7.180	7.540	7.540	12.016	12.016	13.793	13.793	14.897	14.897	16.001	16.001
23	6.006	6.006	7.048	7.048	7.396	7.396	11.552	11.552	13.388	13.388	14.446	14.446	15.503	15.503
25	5.912	5.912	6.917	6.917	7.251	7.251	11.088	11.088	12.983	12.983	13.995	13.995	15.006	15.006
27	5.818	5.818	6.785	6.785	7.107	7.107	10.624	10.624	12.578	12.578	13.543	13.543	14.509	14.509
	FROST REGION													

R407C Models
(Heatpump)

Model : MCM 050DR / M4LC 050CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.185	8.048	12.585	7.694	11.986	7.340	11.386	6.986	10.787	6.633	10.067	6.208
	16	14.507	7.746	13.669	7.349	12.831	6.952	11.993	6.555	11.154	6.158	10.148	5.682
24	16	14.507	9.658	13.669	9.261	12.831	8.864	11.993	8.467	11.154	8.070	10.148	7.593
	17	15.830	9.356	14.753	8.916	13.676	8.476	12.599	8.036	11.522	7.596	10.229	7.067
	18	17.153	9.055	15.837	8.571	14.521	8.088	13.205	7.605	11.889	7.121	10.310	6.541
	19	18.476	8.753	16.921	8.227	15.366	7.700	13.811	7.174	12.257	6.647	10.391	6.015
	20	19.807	8.454	18.085	7.907	16.364	7.361	14.642	6.814	12.921	6.267	10.855	5.610
28	18	17.153	10.966	15.837	10.483	14.521	9.999	13.205	9.516	11.889	9.033	10.310	8.453
	19	18.476	10.665	16.921	10.138	15.366	9.611	13.811	9.085	12.257	8.558	10.391	7.927
	20	19.807	10.366	18.085	9.819	16.364	9.272	14.642	8.725	12.921	8.178	10.855	7.522
	21	21.144	10.069	19.304	9.517	17.463	8.965	15.623	8.413	13.782	7.860	11.574	7.198
	22	22.481	9.772	20.522	9.215	18.563	8.657	16.603	8.100	14.644	7.543	12.293	6.874
	23	23.818	9.475	21.740	8.912	19.662	8.350	17.584	7.788	15.506	7.225	13.012	6.550
	24	25.155	9.178	22.958	8.610	20.761	8.043	18.564	7.475	16.367	6.907	13.731	6.226
30	20	19.807	11.321	18.085	10.775	16.364	10.228	14.642	9.681	12.921	9.134	10.855	8.478
	21	21.144	11.025	19.304	10.472	17.463	9.920	15.623	9.368	13.782	8.816	11.574	8.154
	22	22.481	10.728	20.522	10.170	18.563	9.613	16.603	9.056	14.644	8.498	12.293	7.830
	23	23.818	10.431	21.740	9.868	19.662	9.306	17.584	8.743	15.506	8.181	13.012	7.506
	24	25.155	10.134	22.958	9.566	20.761	8.998	18.564	8.431	16.367	7.863	13.731	7.182

Heating Mode

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	8.400	8.400	9.703	9.703	10.137	10.137	14.914	14.914	17.520	17.520	18.823	18.823	20.125	20.125
17	8.389	8.389	9.569	9.569	9.962	9.962	14.827	14.827	17.051	17.051	18.302	18.302	19.554	19.554
19	8.379	8.379	9.435	9.435	9.787	9.787	14.741	14.741	16.583	16.583	17.782	17.782	18.982	18.982
21	8.368	8.368	9.301	9.301	9.612	9.612	14.654	14.654	16.115	16.115	17.262	17.262	18.410	18.410
23	8.162	8.162	9.118	9.118	9.437	9.437	13.996	13.996	15.646	15.646	16.742	16.742	17.838	17.838
25	7.955	7.955	8.935	8.935	9.262	9.262	13.339	13.339	15.178	15.178	16.222	16.222	17.266	17.266
27	7.749	7.749	8.752	8.752	9.087	9.087	12.681	12.681	14.709	14.709	15.702	15.702	16.694	16.694
	FROST REGION													

R407C Models
(Heatpump)

Model : MCM 062CR / M4LC 061CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	16.355	9.578	15.425	8.825	14.496	8.073	13.567	7.320	12.638	6.568	11.523	5.665
	16	17.213	8.956	16.169	8.249	15.125	7.542	14.081	6.835	13.037	6.129	11.784	5.280
24	16	17.213	12.030	16.169	11.323	15.125	10.616	14.081	9.910	13.037	9.203	11.784	8.354
	17	18.071	11.409	16.912	10.747	15.753	10.086	14.594	9.425	13.435	8.763	12.044	7.970
	18	18.930	10.787	17.656	10.171	16.382	9.556	15.108	8.940	13.834	8.324	12.305	7.585
	19	19.788	10.166	18.399	9.596	17.010	9.025	15.621	8.455	14.232	7.885	12.565	7.201
	20	20.651	9.543	19.186	9.010	17.721	8.476	16.257	7.943	14.792	7.409	13.034	6.769
28	18	18.930	13.861	17.656	13.246	16.382	12.630	15.108	12.014	13.834	11.398	12.305	10.660
	19	19.788	13.240	18.399	12.670	17.010	12.100	15.621	11.529	14.232	10.959	12.565	10.275
	20	20.651	12.617	19.186	12.084	17.721	11.550	16.257	11.017	14.792	10.483	13.034	9.843
	21	21.517	11.994	20.002	11.491	18.488	10.988	16.973	10.485	15.459	9.982	13.641	9.379
	22	22.383	11.371	20.819	10.898	19.254	10.426	17.690	9.954	16.126	9.481	14.248	8.915
	23	23.249	10.747	21.635	10.306	20.021	9.864	18.407	9.422	16.792	8.981	14.855	8.451
	24	24.116	10.124	22.452	9.713	20.787	9.302	19.123	8.891	17.459	8.480	15.462	7.986
30	20	20.651	14.154	19.186	13.621	17.721	13.087	16.257	12.554	14.792	12.020	13.034	11.380
	21	21.517	13.531	20.002	13.028	18.488	12.525	16.973	12.022	15.459	11.519	13.641	10.916
	22	22.383	12.908	20.819	12.435	19.254	11.963	17.690	11.491	16.126	11.018	14.248	10.452
	23	23.249	12.284	21.635	11.843	20.021	11.401	18.407	10.959	16.792	10.518	14.855	9.988
	24	24.116	11.661	22.452	11.250	20.787	10.839	19.123	10.428	17.459	10.017	15.462	9.524

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	9.006	9.006	10.617	10.617	11.154	11.154	17.060	17.060	20.282	20.282	21.893	21.893	23.504	23.504
17	8.942	8.942	10.453	10.453	10.956	10.956	16.747	16.747	19.737	19.737	21.286	21.286	22.836	22.836
19	8.878	8.878	10.288	10.288	10.758	10.758	16.433	16.433	19.191	19.191	20.679	20.679	22.167	22.167
21	8.814	8.814	10.124	10.124	10.560	10.560	16.120	16.120	18.646	18.646	20.073	20.073	21.499	21.499
23	8.643	8.643	9.932	9.932	10.362	10.362	15.582	15.582	18.100	18.100	19.466	19.466	20.831	20.831
25	8.472	8.472	9.741	9.741	10.164	10.164	15.044	15.044	17.555	17.555	18.859	18.859	20.163	20.163
27	8.301	8.301	9.550	9.550	9.966	9.966	14.506	14.506	17.009	17.009	18.252	18.252	19.495	19.495
	FROST REGION													

R410A Models
(Cooling only)

Model : M5CM 040D / M5LC 035C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	10.740	6.894	9.860	6.014	8.985	5.138	8.110	4.262	7.235	3.386	6.185	2.335
	16	10.985	6.356	10.126	5.554	9.269	4.754	8.412	3.954	7.555	3.154	6.527	2.194
24	16	10.985	8.560	10.126	7.757	9.269	6.957	8.412	6.157	7.555	5.357	6.527	4.397
	17	11.230	8.021	10.392	7.297	9.553	6.574	8.714	5.850	7.876	5.126	6.869	4.257
	18	11.473	7.481	10.654	6.834	9.834	6.187	9.015	5.540	8.195	4.893	7.212	4.116
	19	11.738	6.930	11.046	6.305	10.354	5.680	9.662	5.055	8.704	4.564	7.554	3.975
	20	11.953	6.381	11.137	5.789	10.322	5.197	9.506	4.605	8.691	4.013	7.713	3.302
28	18	11.473	9.685	10.654	9.038	9.834	8.390	9.015	7.743	8.195	7.096	7.212	6.320
	19	11.738	9.133	11.046	8.508	10.354	7.883	9.662	7.258	8.704	6.768	7.554	6.179
	20	11.953	8.584	11.137	7.992	10.322	7.400	9.506	6.808	8.691	6.216	7.713	5.506
	21	12.189	8.024	11.359	7.411	10.528	6.797	9.698	6.183	8.868	5.569	7.871	4.833
	22	12.425	7.464	11.580	6.829	10.735	6.193	9.889	5.558	9.044	4.922	8.030	4.160
	23	12.661	6.904	11.801	6.247	10.941	5.590	10.081	4.933	9.221	4.275	8.189	3.486
	24	12.898	6.344	12.023	5.665	11.148	4.986	10.272	4.307	9.397	3.628	8.347	2.813
30	20	11.953	9.686	11.137	9.094	10.322	8.502	9.506	7.910	8.691	7.318	7.713	6.608
	21	12.189	9.126	11.359	8.512	10.528	7.899	9.698	7.285	8.868	6.671	7.871	5.934
	22	12.425	8.566	11.580	7.931	10.735	7.295	9.889	6.660	9.044	6.024	8.030	5.261
	23	12.661	8.006	11.801	7.349	10.941	6.692	10.081	6.034	9.221	5.377	8.189	4.588
	24	12.898	7.446	12.023	6.767	11.148	6.088	10.272	5.409	9.397	4.730	8.347	3.915

Model : M5CM 040D / M5LC 040C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	10.874	6.936	10.294	6.356	9.796	5.858	9.298	5.360	8.800	4.862	8.202	4.265
	16	11.376	6.545	10.802	6.038	10.268	5.571	9.735	5.105	9.202	4.638	8.562	4.079
24	16	11.376	8.795	10.802	8.288	10.268	7.821	9.735	7.355	9.202	6.888	8.562	6.329
	17	11.878	8.404	11.309	7.969	10.741	7.534	10.173	7.099	9.604	6.664	8.922	6.142
	18	12.342	7.974	11.753	7.586	11.165	7.198	10.577	6.810	9.988	6.422	9.282	5.956
	19	12.825	7.534	12.311	7.140	11.797	6.746	11.284	6.352	10.538	6.087	9.642	5.769
	20	13.264	7.089	12.606	6.664	11.949	6.239	11.291	5.813	10.634	5.388	9.845	4.877
28	18	12.342	10.224	11.753	9.836	11.165	9.448	10.577	9.060	9.988	8.672	9.282	8.206
	19	12.825	9.784	12.311	9.390	11.797	8.996	11.284	8.602	10.538	8.337	9.642	8.019
	20	13.264	9.339	12.606	8.914	11.949	8.489	11.291	8.063	10.634	7.638	9.845	7.127
	21	13.722	8.884	13.015	8.375	12.309	7.865	11.602	7.356	10.895	6.847	10.047	6.236
	22	14.180	8.428	13.424	7.835	12.668	7.242	11.913	6.649	11.157	6.056	10.250	5.344
	23	14.638	7.973	13.833	7.296	13.028	6.619	12.223	5.942	11.418	5.264	10.452	4.452
	24	15.096	7.517	14.242	6.756	13.388	5.995	12.534	5.234	11.680	4.473	10.655	3.560
30	20	13.264	10.464	12.606	10.039	11.949	9.614	11.291	9.188	10.634	8.763	9.845	8.252
	21	13.722	10.009	13.015	9.500	12.309	8.990	11.602	8.481	10.895	7.972	10.047	7.361
	22	14.180	9.553	13.424	8.960	12.668	8.367	11.913	7.774	11.157	7.181	10.250	6.469
	23	14.638	9.098	13.833	8.421	13.028	7.744	12.223	7.067	11.418	6.389	10.452	5.577
	24	15.096	8.642	14.242	7.881	13.388	7.120	12.534	6.359	11.680	5.598	10.655	4.685

R410A Models
(Cooling only)

Model : M5CM 050D / M5LC 050C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.851	8.912	13.270	8.227	12.638	7.657	12.007	7.086	11.375	6.516	10.618	5.832
	16	14.342	8.407	13.699	7.819	13.031	7.288	12.363	6.758	11.696	6.227	10.894	5.590
24	16	14.342	11.142	13.699	10.554	13.031	10.023	12.363	9.493	11.696	8.962	10.894	8.325
	17	14.833	10.637	14.129	10.146	13.424	9.655	12.720	9.164	12.016	8.673	11.171	8.084
	18	15.347	10.078	14.597	9.648	13.847	9.218	13.097	8.788	12.347	8.358	11.447	7.843
	19	15.880	9.487	15.179	8.956	14.477	8.425	13.775	7.894	12.842	7.761	11.723	7.601
	20	16.375	8.928	15.528	8.451	14.680	7.973	13.833	7.496	12.986	7.019	11.970	6.447
28	18	15.347	12.813	14.597	12.383	13.847	11.953	13.097	11.523	12.347	11.093	11.447	10.578
	19	15.880	12.222	15.179	11.691	14.477	11.160	13.775	10.629	12.842	10.496	11.723	10.336
	20	16.375	11.663	15.528	11.186	14.680	10.708	13.833	10.231	12.986	9.754	11.970	9.182
	21	16.888	11.070	15.989	10.485	15.091	9.900	14.192	9.315	13.294	8.730	12.216	8.027
	22	17.401	10.478	16.451	9.785	15.501	9.091	14.551	8.398	13.602	7.705	12.462	6.873
	23	17.914	9.886	16.913	9.084	15.912	8.283	14.911	7.482	13.909	6.680	12.708	5.718
	24	18.427	9.294	17.375	8.384	16.322	7.475	15.270	6.565	14.217	5.655	12.954	4.564
30	20	16.375	13.030	15.528	12.553	14.680	12.076	13.833	11.599	12.986	11.122	11.970	10.549
	21	16.888	12.438	15.989	11.853	15.091	11.267	14.192	10.682	13.294	10.097	12.216	9.395
	22	17.401	11.846	16.451	11.152	15.501	10.459	14.551	9.766	13.602	9.072	12.462	8.240
	23	17.914	11.253	16.913	10.452	15.912	9.651	14.911	8.849	13.909	8.048	12.708	7.086
	24	18.427	10.661	17.375	9.752	16.322	8.842	15.270	7.932	14.217	7.023	12.954	5.932

Model : M5CM 062C / M5LC 061C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	14.970	9.688	14.484	9.102	13.941	8.675	13.398	8.247	12.855	7.819	12.204	7.306
	16	15.690	9.251	15.146	8.760	14.574	8.348	14.002	7.935	13.430	7.523	12.743	7.029
24	16	15.690	12.050	15.146	11.558	14.574	11.146	14.002	10.734	13.430	10.322	12.743	9.828
	17	16.410	11.612	15.809	11.216	15.207	10.819	14.606	10.423	14.004	10.026	13.283	9.550
	18	17.157	11.102	16.515	10.750	15.874	10.398	15.233	10.047	14.591	9.695	13.822	9.273
	19	17.919	10.573	17.319	10.177	16.719	9.782	16.120	9.386	15.320	9.209	14.361	8.996
	20	18.640	10.041	17.875	9.585	17.110	9.129	16.345	8.672	15.581	8.216	14.663	7.669
28	18	17.157	13.900	16.515	13.549	15.874	13.197	15.233	12.845	14.591	12.494	13.822	12.072
	19	17.919	13.372	17.319	12.976	16.719	12.581	16.120	12.185	15.320	12.007	14.361	11.794
	20	18.640	12.840	17.875	12.384	17.110	11.928	16.345	11.471	15.581	11.015	14.663	10.468
	21	19.378	12.291	18.529	11.685	17.680	11.079	16.831	10.473	15.983	9.867	14.964	9.141
	22	20.115	11.741	19.182	10.986	18.250	10.230	17.317	9.475	16.385	8.720	15.266	7.814
	23	20.852	11.191	19.836	10.287	18.820	9.382	17.803	8.477	16.787	7.572	15.567	6.487
	24	21.590	10.642	20.490	9.588	19.389	8.533	18.289	7.479	17.189	6.425	15.869	5.160
30	20	18.640	14.240	17.875	13.783	17.110	13.327	16.345	12.871	15.581	12.414	14.663	11.867
	21	19.378	13.690	18.529	13.084	17.680	12.478	16.831	11.873	15.983	11.267	14.964	10.540
	22	20.115	13.140	19.182	12.385	18.250	11.630	17.317	10.875	16.385	10.119	15.266	9.213
	23	20.852	12.591	19.836	11.686	18.820	10.781	17.803	9.877	16.787	8.972	15.567	7.886
	24	21.590	12.041	20.490	10.987	19.389	9.933	18.289	8.879	17.189	7.824	15.869	6.559

R410A Models
(Heatpump)

Model : M5CM 040DR / M5LC 035CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	10.740	6.894	9.860	6.014	8.985	5.138	8.110	4.262	7.235	3.386	6.185	2.335
	16	10.985	6.356	10.126	5.554	9.269	4.754	8.412	3.954	7.555	3.154	6.527	2.194
24	16	10.985	8.560	10.126	7.757	9.269	6.957	8.412	6.157	7.555	5.357	6.527	4.397
	17	11.230	8.021	10.392	7.297	9.553	6.574	8.714	5.850	7.876	5.126	6.869	4.257
	18	11.473	7.481	10.654	6.834	9.834	6.187	9.015	5.540	8.195	4.893	7.212	4.116
	19	11.738	6.930	11.046	6.305	10.354	5.680	9.662	5.055	8.704	4.564	7.554	3.975
	20	11.953	6.381	11.137	5.789	10.322	5.197	9.506	4.605	8.691	4.013	7.713	3.302
28	18	11.473	9.685	10.654	9.038	9.834	8.390	9.015	7.743	8.195	7.096	7.212	6.320
	19	11.738	9.133	11.046	8.508	10.354	7.883	9.662	7.258	8.704	6.768	7.554	6.179
	20	11.953	8.584	11.137	7.992	10.322	7.400	9.506	6.808	8.691	6.216	7.713	5.506
	21	12.189	8.024	11.359	7.411	10.528	6.797	9.698	6.183	8.868	5.569	7.871	4.833
	22	12.425	7.464	11.580	6.829	10.735	6.193	9.889	5.558	9.044	4.922	8.030	4.160
	23	12.661	6.904	11.801	6.247	10.941	5.590	10.081	4.933	9.221	4.275	8.189	3.486
	24	12.898	6.344	12.023	5.665	11.148	4.986	10.272	4.307	9.397	3.628	8.347	2.813
30	20	11.953	9.686	11.137	9.094	10.322	8.502	9.506	7.910	8.691	7.318	7.713	6.608
	21	12.189	9.126	11.359	8.512	10.528	7.899	9.698	7.285	8.868	6.671	7.871	5.934
	22	12.425	8.566	11.580	7.931	10.735	7.295	9.889	6.660	9.044	6.024	8.030	5.261
	23	12.661	8.006	11.801	7.349	10.941	6.692	10.081	6.034	9.221	5.377	8.189	4.588
	24	12.898	7.446	12.023	6.767	11.148	6.088	10.272	5.409	9.397	4.730	8.347	3.915

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.847	5.847	6.618	6.618	6.875	6.875	9.701	9.701	11.242	11.242	12.013	12.013	12.784	12.784
17	5.694	5.694	6.432	6.432	6.719	6.719	9.689	9.689	11.078	11.078	11.848	11.848	12.617	12.617
19	5.540	5.540	6.247	6.247	6.564	6.564	9.678	9.678	10.914	10.914	11.682	11.682	12.450	12.450
21	5.387	5.387	6.088	6.088	6.409	6.409	9.538	9.538	10.750	10.750	11.517	11.517	12.283	12.283
23	5.234	5.234	5.955	5.955	6.253	6.253	9.270	9.270	10.587	10.587	11.351	11.351	12.116	12.116
25	5.080	5.080	5.822	5.822	6.098	6.098	9.003	9.003	10.423	10.423	11.186	11.186	11.949	11.949
27	4.927	4.927	5.689	5.689	5.943	5.943	8.735	8.735	10.259	10.259	11.020	11.020	11.782	11.782
	FROST REGION													

R410A Models
(Heatpump)

Model : M5CM 040DR / M5LC 040CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	10.874	6.936	10.294	6.356	9.796	5.858	9.298	5.360	8.800	4.862	8.202	4.265
	16	11.376	6.545	10.802	6.038	10.268	5.571	9.735	5.105	9.202	4.638	8.562	4.079
24	16	11.376	8.795	10.802	8.288	10.268	7.821	9.735	7.355	9.202	6.888	8.562	6.329
	17	11.878	8.404	11.309	7.969	10.741	7.534	10.173	7.099	9.604	6.664	8.922	6.142
	18	12.342	7.974	11.753	7.586	11.165	7.198	10.577	6.810	9.988	6.422	9.282	5.956
	19	12.825	7.534	12.311	7.140	11.797	6.746	11.284	6.352	10.538	6.087	9.642	5.769
	20	13.264	7.089	12.606	6.664	11.949	6.239	11.291	5.813	10.634	5.388	9.845	4.877
28	18	12.342	10.224	11.753	9.836	11.165	9.448	10.577	9.060	9.988	8.672	9.282	8.206
	19	12.825	9.784	12.311	9.390	11.797	8.996	11.284	8.602	10.538	8.337	9.642	8.019
	20	13.264	9.339	12.606	8.914	11.949	8.489	11.291	8.063	10.634	7.638	9.845	7.127
	21	13.722	8.884	13.015	8.375	12.309	7.865	11.602	7.356	10.895	6.847	10.047	6.236
	22	14.180	8.428	13.424	7.835	12.668	7.242	11.913	6.649	11.157	6.056	10.250	5.344
	23	14.638	7.973	13.833	7.296	13.028	6.619	12.223	5.942	11.418	5.264	10.452	4.452
	24	15.096	7.517	14.242	6.756	13.388	5.995	12.534	5.234	11.680	4.473	10.655	3.560
30	20	13.264	10.464	12.606	10.039	11.949	9.614	11.291	9.188	10.634	8.763	9.845	8.252
	21	13.722	10.009	13.015	9.500	12.309	8.990	11.602	8.481	10.895	7.972	10.047	7.361
	22	14.180	9.553	13.424	8.960	12.668	8.367	11.913	7.774	11.157	7.181	10.250	6.469
	23	14.638	9.098	13.833	8.421	13.028	7.744	12.223	7.067	11.418	6.389	10.452	5.577
	24	15.096	8.642	14.242	7.881	13.388	7.120	12.534	6.359	11.680	5.598	10.655	4.685

Heating Mode

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	6.910	6.910	7.821	7.821	8.124	8.124	11.464	11.464	13.286	13.286	14.197	14.197	15.108	15.108
17	6.729	6.729	7.471	7.471	7.927	7.927	11.451	11.451	13.020	13.020	13.919	13.919	14.818	14.818
19	6.548	6.548	7.121	7.121	7.730	7.730	11.437	11.437	12.754	12.754	13.640	13.640	14.527	14.527
21	6.366	6.366	6.905	6.905	7.532	7.532	11.228	11.228	12.487	12.487	13.362	13.362	14.236	14.236
23	6.185	6.185	6.824	6.824	7.335	7.335	10.823	10.823	12.221	12.221	13.083	13.083	13.946	13.946
25	6.004	6.004	6.742	6.742	7.138	7.138	10.418	10.418	11.955	11.955	12.805	12.805	13.655	13.655
27	5.823	5.823	6.661	6.661	6.940	6.940	10.013	10.013	11.689	11.689	12.527	12.527	13.365	13.365
	FROST REGION													

R410A Models
(Heatpump)

Model : M5CM 050DR / M5LC 050CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	13.851	8.912	13.270	8.227	12.638	7.657	12.007	7.086	11.375	6.516	10.618	5.832
	16	14.342	8.407	13.699	7.819	13.031	7.288	12.363	6.758	11.696	6.227	10.894	5.590
24	16	14.342	11.142	13.699	10.554	13.031	10.023	12.363	9.493	11.696	8.962	10.894	8.325
	17	14.833	10.637	14.129	10.146	13.424	9.655	12.720	9.164	12.016	8.673	11.171	8.084
	18	15.347	10.078	14.597	9.648	13.847	9.218	13.097	8.788	12.347	8.358	11.447	7.843
	19	15.880	9.487	15.179	8.956	14.477	8.425	13.775	7.894	12.842	7.761	11.723	7.601
	20	16.375	8.928	15.528	8.451	14.680	7.973	13.833	7.496	12.986	7.019	11.970	6.447
28	18	15.347	12.813	14.597	12.383	13.847	11.953	13.097	11.523	12.347	11.093	11.447	10.578
	19	15.880	12.222	15.179	11.691	14.477	11.160	13.775	10.629	12.842	10.496	11.723	10.336
	20	16.375	11.663	15.528	11.186	14.680	10.708	13.833	10.231	12.986	9.754	11.970	9.182
	21	16.888	11.070	15.989	10.485	15.091	9.900	14.192	9.315	13.294	8.730	12.216	8.027
	22	17.401	10.478	16.451	9.785	15.501	9.091	14.551	8.398	13.602	7.705	12.462	6.873
	23	17.914	9.886	16.913	9.084	15.912	8.283	14.911	7.482	13.909	6.680	12.708	5.718
	24	18.427	9.294	17.375	8.384	16.322	7.475	15.270	6.565	14.217	5.655	12.954	4.564
30	20	16.375	13.030	15.528	12.553	14.680	12.076	13.833	11.599	12.986	11.122	11.970	10.549
	21	16.888	12.438	15.989	11.853	15.091	11.267	14.192	10.682	13.294	10.097	12.216	9.395
	22	17.401	11.846	16.451	11.152	15.501	10.459	14.551	9.766	13.602	9.072	12.462	8.240
	23	17.914	11.253	16.913	10.452	15.912	9.651	14.911	8.849	13.909	8.048	12.708	7.086
	24	18.427	10.661	17.375	9.752	16.322	8.842	15.270	7.932	14.217	7.023	12.954	5.932

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	8.504	8.504	9.626	9.626	9.999	9.999	14.110	14.110	16.352	16.352	17.473	17.473	18.595	18.595
17	8.282	8.282	9.644	9.644	9.741	9.741	14.093	14.093	15.944	15.944	17.039	17.039	18.133	18.133
19	8.059	8.059	9.663	9.663	9.483	9.483	14.076	14.076	15.536	15.536	16.604	16.604	17.672	17.672
21	7.836	7.836	9.451	9.451	9.225	9.225	13.769	13.769	15.127	15.127	16.169	16.169	17.211	17.211
23	7.613	7.613	9.011	9.011	8.966	8.966	13.172	13.172	14.719	14.719	15.734	15.734	16.749	16.749
25	7.390	7.390	8.570	8.570	8.708	8.708	12.575	12.575	14.310	14.310	15.299	15.299	16.288	16.288
27	7.167	7.167	8.129	8.129	8.450	8.450	11.978	11.978	13.902	13.902	14.864	14.864	15.826	15.826
	FROST REGION													

R410A Models
(Heatpump)

Model : M5CM 062CR / M5LC 061CR

Cooling Mode

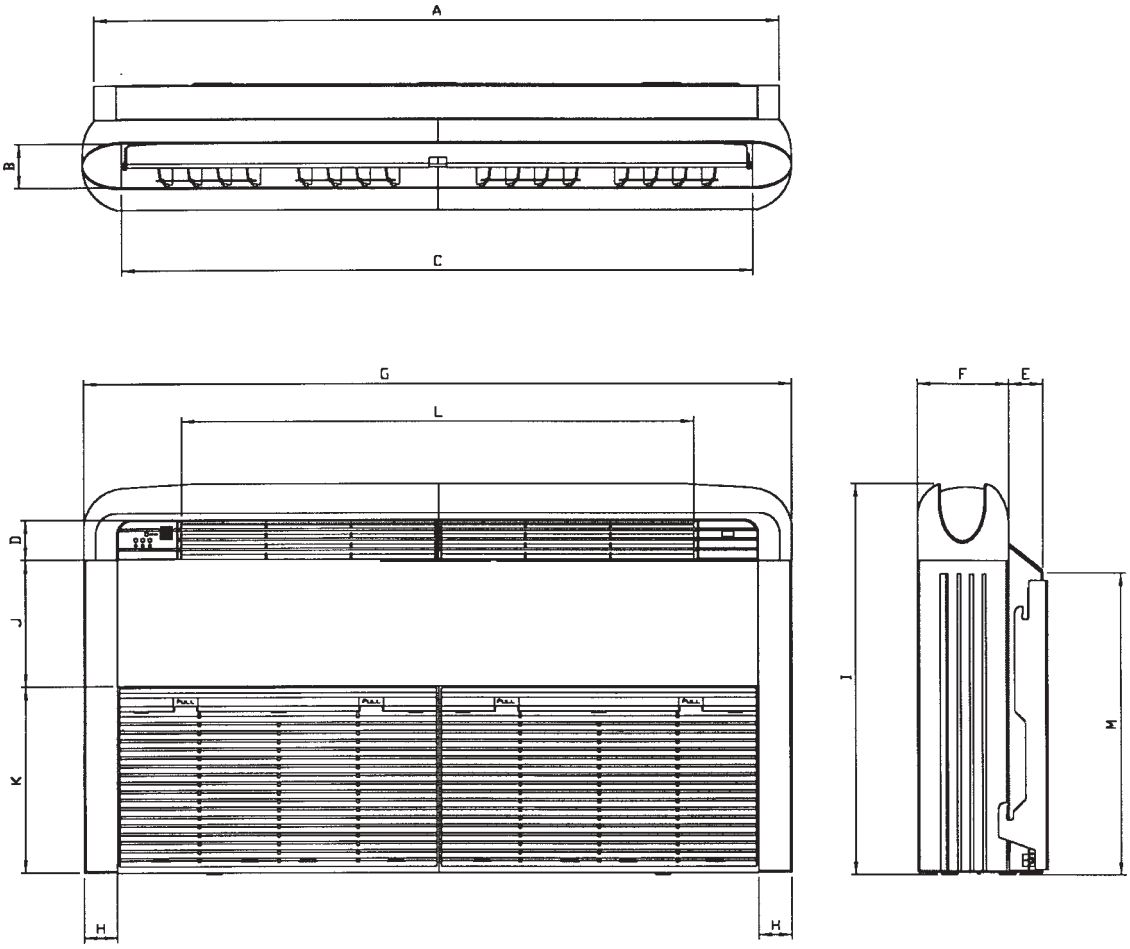
ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	14.970	9.688	14.484	9.102	13.941	8.675	13.398	8.247	12.855	7.819	12.204	7.306
	16	15.690	9.251	15.146	8.760	14.574	8.348	14.002	7.935	13.430	7.523	12.743	7.029
24	16	15.690	12.050	15.146	11.558	14.574	11.146	14.002	10.734	13.430	10.322	12.743	9.828
	17	16.410	11.612	15.809	11.216	15.207	10.819	14.606	10.423	14.004	10.026	13.283	9.550
	18	17.157	11.102	16.515	10.750	15.874	10.398	15.233	10.047	14.591	9.695	13.822	9.273
	19	17.919	10.573	17.319	10.177	16.719	9.782	16.120	9.386	15.320	9.209	14.361	8.996
	20	18.640	10.041	17.875	9.585	17.110	9.129	16.345	8.672	15.581	8.216	14.663	7.669
28	18	17.157	13.900	16.515	13.549	15.874	13.197	15.233	12.845	14.591	12.494	13.822	12.072
	19	17.919	13.372	17.319	12.976	16.719	12.581	16.120	12.185	15.320	12.007	14.361	11.794
	20	18.640	12.840	17.875	12.384	17.110	11.928	16.345	11.471	15.581	11.015	14.663	10.468
	21	19.378	12.291	18.529	11.685	17.680	11.079	16.831	10.473	15.983	9.867	14.964	9.141
	22	20.115	11.741	19.182	10.986	18.250	10.230	17.317	9.475	16.385	8.720	15.266	7.814
	23	20.852	11.191	19.836	10.287	18.820	9.382	17.803	8.477	16.787	7.572	15.567	6.487
	24	21.590	10.642	20.490	9.588	19.389	8.533	18.289	7.479	17.189	6.425	15.869	5.160
30	20	18.640	14.240	17.875	13.783	17.110	13.327	16.345	12.871	15.581	12.414	14.663	11.867
	21	19.378	13.690	18.529	13.084	17.680	12.478	16.831	11.873	15.983	11.267	14.964	10.540
	22	20.115	13.140	19.182	12.385	18.250	11.630	17.317	10.875	16.385	10.119	15.266	9.213
	23	20.852	12.591	19.836	11.686	18.820	10.781	17.803	9.877	16.787	8.972	15.567	7.886
	24	21.590	12.041	20.490	10.987	19.389	9.933	18.289	8.879	17.189	7.824	15.869	6.559

Heating Mode

ID DB°C	Outdoor WB°C														
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	9.745	9.745	11.029	11.029	11.458	11.458	16.168	16.168	18.737	18.737	20.022	20.022	21.306	21.306
17	9.489	9.489	10.803	10.803	11.168	11.168	16.149	16.149	18.304	18.304	19.564	19.564	20.823	20.823
19	9.234	9.234	10.576	10.576	10.879	10.879	16.129	16.129	17.871	17.871	19.105	19.105	20.339	20.339
21	8.978	8.978	10.303	10.303	10.590	10.590	15.799	15.799	17.439	17.439	18.647	18.647	19.856	19.856
23	8.723	8.723	9.984	9.984	10.301	10.301	15.158	15.158	17.006	17.006	18.189	18.189	19.373	19.373
25	8.467	8.467	9.664	9.664	10.011	10.011	14.516	14.516	16.573	16.573	17.731	17.731	18.889	18.889
27	8.212	8.212	9.345	9.345	9.722	9.722	13.875	13.875	16.140	16.140	17.273	17.273	18.406	18.406
	FRSOT REGION													

Dimensional Data

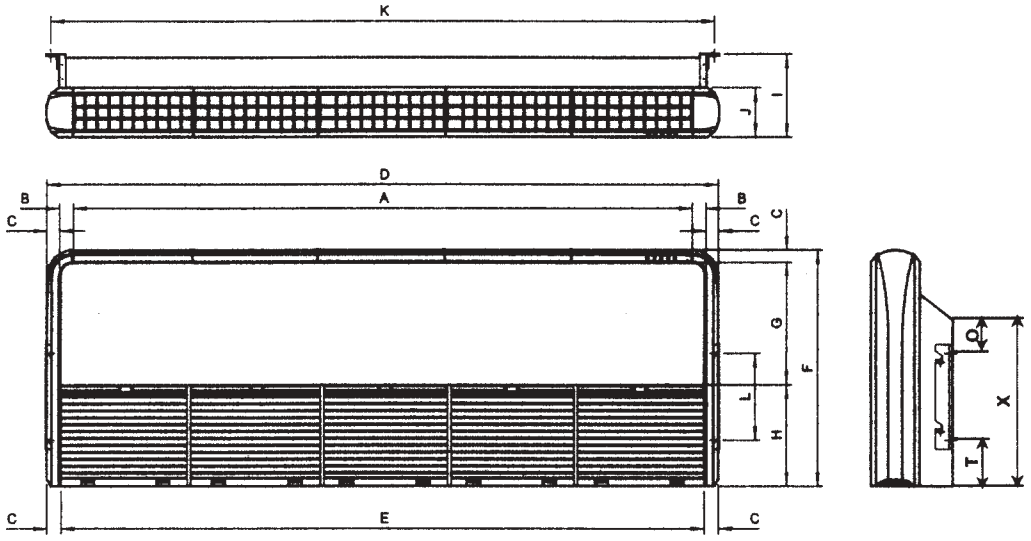
Indoor Unit
Model : MCM - D SERIES
(Cooling only and Heatpump)



MODEL	MCM 020D/DR	MCM 025D/DR	MCM 030D/DR	MCM 040D/DR	MCM 050D/DR
A	1174	1174	1174	1674	1674
B	75	75	75	75	75
C	1082	1082	1082	1582	1582
D	68	68	68	68	68
E	58	58	93	93	93
F	156	156	156	156	156
G	1214	1214	1214	1714	1714
H	57	57	57	57	57
I	670	670	670	670	670
J	216	216	216	216	216
K	319	319	319	319	319
L	879	879	879	1379	1379
M	517	517	517	517	517

All dimension in mm

Model : MCM 062C/CR

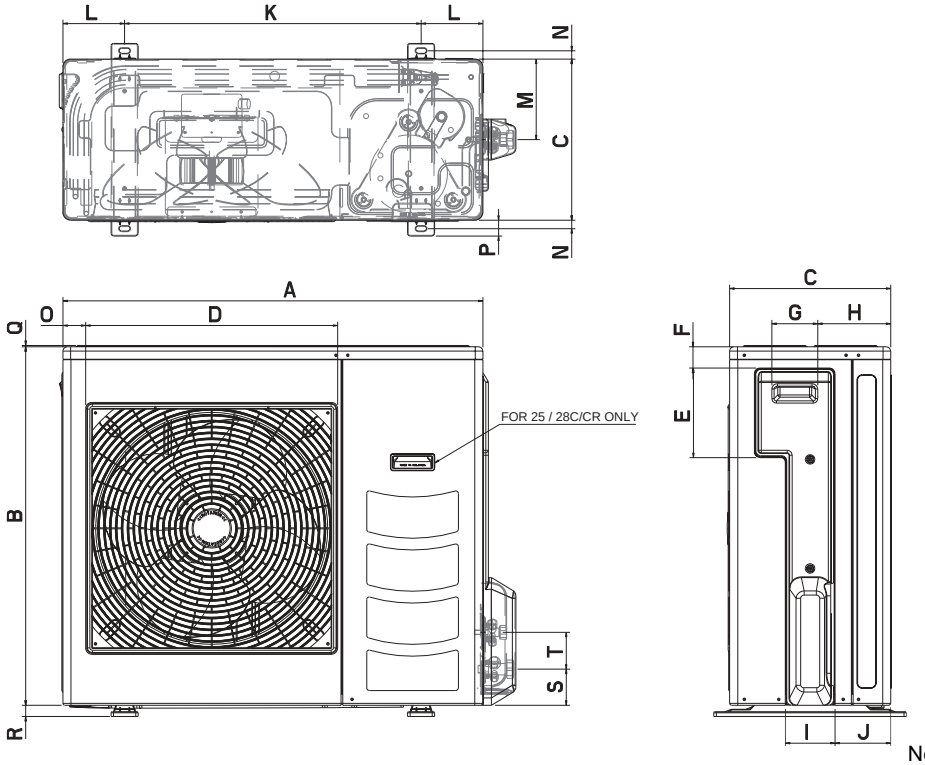


All Dimension in mm

MCM	A(GRILL)	B	C	D	E	F	G	H	I	J	K	L	O	T	X
062C	1750	40	36	1930	1830	680	352	292	285	140	1880	250	126	132	508

Outdoor Unit

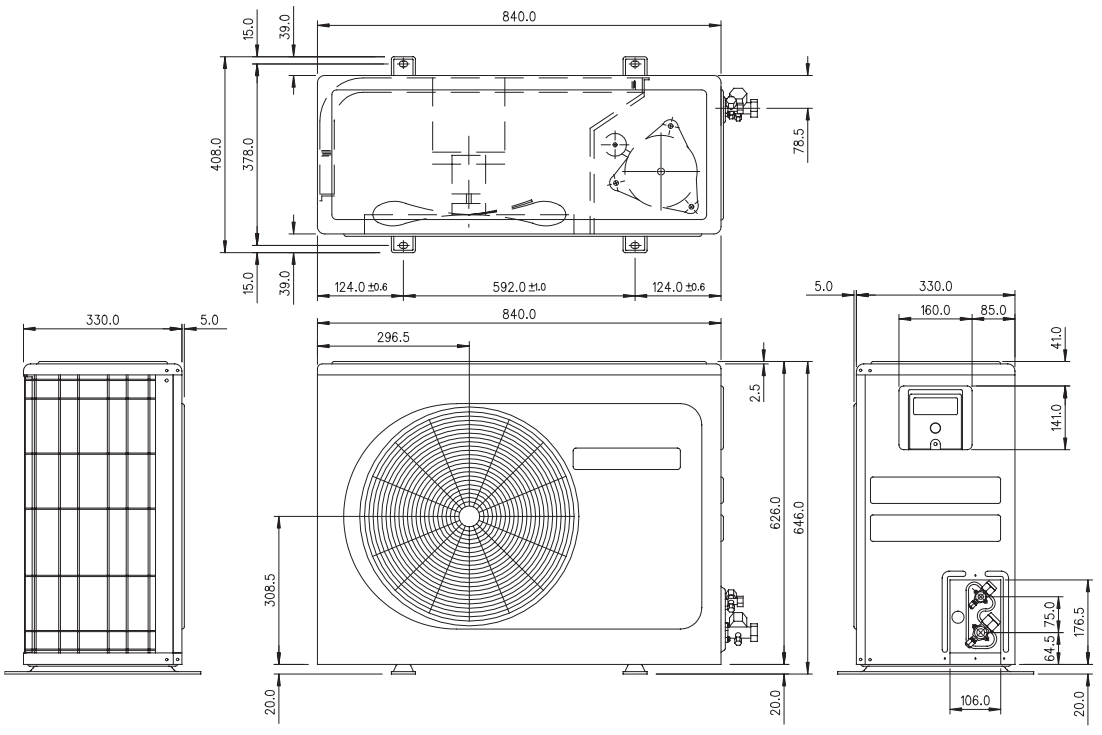
Model : MLC 018C
MLC / M5LC 020 / 025 / 028C/CR



Note : Dimension in mm

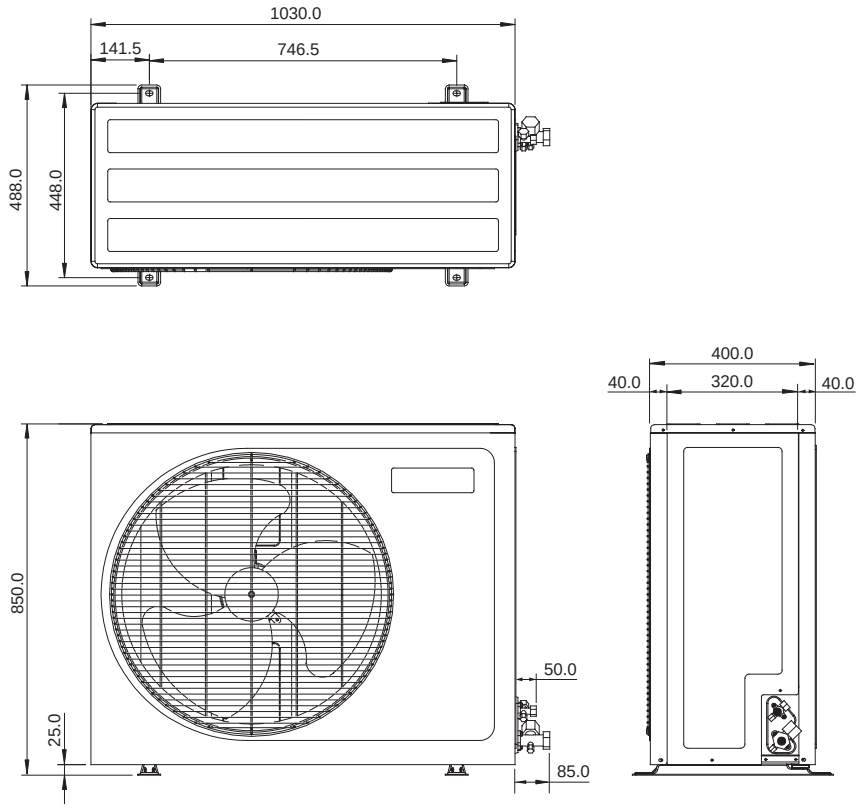
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
18C, 20C/CR	855	628	328	508	181	44	93	149	101	113	603	126	164	17	49	32	3	23	73	75
25/28C/CR	855	730	328	513	182	44	93	149	101	113	603	126	164	17	47	32	3	23	73	75

Model : MLC / M4LC 020 / 025B/BR



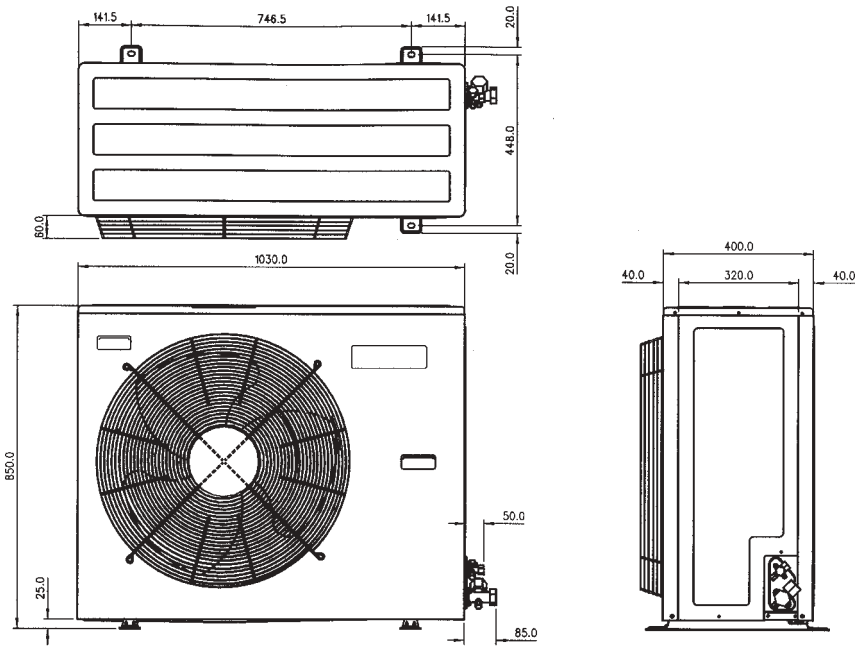
Note : Dimension in mm

Model : MLC / M4LC 030 / 035 / 040 / 050C/CR
M5LC 035 / 040 / 050C/CR



Note : Dimension in mm

Model : MLC / M4LC / M5LC 061C/CR



Note : Dimension in mm

Electrical Data

Electrical Data - Cooling Only (R22)

MODEL	INDOOR UNIT		MCM 020D	
	OUTDOOR UNIT		MLC 018C	MLC 020C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	84	
	RATED RUNNING CURRENT	A	0.37	
	MOTOR OUTPUT	W	40	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	125	117
	RATED RUNNING CURRENT	A	0.53	0.51
	MOTOR OUTPUT	W	64	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	35.0	45.0
	RATED INPUT POWER	W	1559	1522
	RATED RUNNING CURRENT	A	7.0	6.7
	LOCKED ROTOR AMP.	A	47	47

MODEL	INDOOR UNIT		MCM 020D
	OUTDOOR UNIT		MLC 020B
INDOOR MOTOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	84
	RATED RUNNING CURRENT	A	0.37
	MOTOR OUTPUT	W	40
	POLES		4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	93
	RATED RUNNING CURRENT	A	0.41
	MOTOR OUTPUT	W	55
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	µF	45.0
	RATED INPUT POWER	W	1673
	RATED RUNNING CURRENT	A	7.5
	LOCKED ROTOR AMP.	A	42

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
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Electrical Data - Cooling Only (R22)

MODEL	INDOOR UNIT		MCM 025D	
	OUTDOOR UNIT		MLC 025B	MLC 025C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	109	
	RATED RUNNING CURRENT	A	0.48	
	MOTOR OUTPUT	W	65	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	93	132
	RATED RUNNING CURRENT	A	0.41	0.58
	MOTOR OUTPUT	W	55	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	45.0	45.0
	RATED INPUT POWER	W	2238	2222
	RATED RUNNING CURRENT	A	10.7	11.0
	LOCKED ROTOR AMP.	A	63	63

MODEL	INDOOR UNIT		MCM 030D	
	OUTDOOR UNIT		MLC 028C	MLC 030C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	110	
	RATED RUNNING CURRENT	A	0.49	
	MOTOR OUTPUT	W	65	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.02
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø / <3Ø>	µF	50.0	50.0 / <NIL>
	RATED INPUT POWER - 1Ø / <3Ø>	W	2642	2270 / <2330>
	RATED RUNNING CURRENT - 1Ø / <3Ø>	A	13.2	10.6 / <3.3>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	66	82 / <35>

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Electrical Data - Cooling Only (R22)

MODEL	INDOOR UNIT		MCM 040D	
	OUTDOOR UNIT		MLC 035C	MLC 040C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø <3Ø>	µF	60.0	60.0 / <NIL>
	RATED INPUT POWER - 1Ø <3Ø>	W	2747	2877 / <2847>
	RATED RUNNING CURRENT - 1Ø <3Ø>	A	13.5	15.7 / <5.1>
	LOCKED ROTOR AMP. - 1Ø <3Ø>	A	97	114 / <48>

MODEL	INDOOR UNIT		MCM 050D	MCM 062C
	OUTDOOR UNIT		MLC 050C	MLC 061C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	171	327
	RATED RUNNING CURRENT	A	0.76	1.4
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	258
	RATED RUNNING CURRENT	A	1.02	1.20
	MOTOR OUTPUT	W	145	400
	POLES		8	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER	W	4199	5008
	RATED RUNNING CURRENT	A	7.5	8.5
	LOCKED ROTOR AMP.	A	66	74

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Electrical Data - Heat Pump (R22)

MODEL	INDOOR UNIT		MCM 020DR	
	OUTDOOR UNIT		MLC 020BR	MLC 020CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	84	
	RATED RUNNING CURRENT	A	0.37	
	MOTOR OUTPUT	W	40	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	93	117
	RATED RUNNING CURRENT	A	0.41	0.51
	MOTOR OUTPUT	W	55	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	45.0	45.0
	RATED INPUT POWER (COOLING)	W	1673	1522
	RATED INPUT POWER (HEATING)	W	1723	1512
	RATED RUNNING CURRENT (COOLING)	A	7.5	7.6
	RATED RUNNING CURRENT (HEATING)	A	7.7	7.9
	LOCKED ROTOR AMP.	A	42	47

MODEL	INDOOR UNIT		MCM 025DR	
	OUTDOOR UNIT		MLC 025BR	MLC 025CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	109	
	RATED RUNNING CURRENT	A	0.48	
	MOTOR OUTPUT	W	65	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	93	132
	RATED RUNNING CURRENT	A	0.41	0.58
	MOTOR OUTPUT	W	55	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	µF	45.0	45.0
	RATED INPUT POWER (COOLING)	W	2238	2222
	RATED INPUT POWER (HEATING)	W	2218	2062
	RATED RUNNING CURRENT (COOLING)	A	10.7	11.0
	RATED RUNNING CURRENT (HEATING)	A	10.4	10.6
	LOCKED ROTOR AMP.	A	63	63

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
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Electrical Data - Heat Pump (R22)

MODEL	INDOOR UNIT		MCM 030DR	
	OUTDOOR UNIT		MLC 028CR	MLC 030CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	110	
	RATED RUNNING CURRENT	A	0.49	
	MOTOR OUTPUT	W	65	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.02
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø <3Ø>	µF	50.0	50.0 / <NIL>
	RATED INPUT POWER (COOLING) - 1Ø / <3Ø>	W	2642	2551 / <2531>
	RATED INPUT POWER (HEATING) - 1Ø / <3Ø>	W	2422	2591 / <2571>
	RATED RUNNING CURRENT (COOLING) - 1Ø / <3Ø>	A	13.2	12.3 / <4.2>
	RATED RUNNING CURRENT (HEATING) - 1Ø / <3Ø>	A	12.5	12.5 / <4.4>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	66	82 / <35>

MODEL	INDOOR UNIT		MCM 040DR	
	OUTDOOR UNIT		MLC 035CR	MLC 040CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø <3Ø>	µF	60.0	60.0 / <NIL>
	RATED INPUT POWER (COOLING) - 1Ø <3Ø>	W	2607	3010 / <2980>
	RATED INPUT POWER (HEATING) - 1Ø <3Ø>	W	2607	2890 / <2860>
	RATED RUNNING CURRENT (COOLING) - 1Ø <3Ø>	A	13.5	14.8 / <4.2>
	RATED RUNNING CURRENT (HEATING) - 1Ø <3Ø>	A	13.5	14.2 / <3.6>
	LOCKED ROTOR AMP - 1Ø <3Ø>	A	97	114 / <48>

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Electrical Data - Heat Pump (R22)

MODEL	INDOOR UNIT		MCM 050DR	MCM 062CR
	OUTDOOR UNIT		MLC 050CR	MLC 061CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	171	327
	RATED RUNNING CURRENT	A	0.76	1.4
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	258
	RATED RUNNING CURRENT	A	1.02	1.20
	MOTOR OUTPUT	W	145	400
	POLES		8	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER (COOLING)	W	4100	5008
	RATED INPUT POWER (HEATING)	W	3690	3966
	RATED RUNNING CURRENT (COOLING)	A	6.5	8.5
	RATED RUNNING CURRENT (HEATING)	A	4.4	7.2
	LOCKED ROTOR AMP.	A	66	74

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
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Electrical Data - Cooling only (R407C)

MODEL	INDOOR UNIT		MCM 020D	MCM 025D
	OUTDOOR UNIT		M4LC 020B	M4LC 025B
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	96	130
	RATED RUNNING CURRENT	A	0.40	0.58
	MOTOR OUTPUT	W	40	65
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	133	
	RATED RUNNING CURRENT	A	0.56	
	MOTOR OUTPUT	W	55	
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø / <3Ø>	µF	45.0 / <NIL>	50.0 /<NIL>
	RATED INPUT POWER - 1Ø / <3Ø>	W	2112 / <1893>	2660 / <2508>
	RATED RUNNING CURRENT - 1Ø / <3Ø>	A	9.91 / <3.6>	12.5 / <4.8>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	54 / <21>	58 / <26>

MODEL	INDOOR UNIT		MCM 030D
	OUTDOOR UNIT		M4LC 030C
INDOOR MOTOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	132
	RATED RUNNING CURRENT	A	0.58
	MOTOR OUTPUT	W	65
	POLES		4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	241
	RATED RUNNING CURRENT	A	1.09
	MOTOR OUTPUT	W	145
	POLES		8
COMPRESSOR	INSULATION GRADE		-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>
	CAPACITOR - 1Ø / <3Ø>	µF	50.0 / <NIL>
	RATED INPUT POWER - 1Ø / <3Ø>	W	2560 / <2550>
	RATED RUNNING CURRENT - 1Ø / <3Ø>	A	11.4 / <4.5>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	82 / <40>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
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Electrical Data - Cooling only (R407C)

MODEL	INDOOR UNIT		MCM 040D	
	OUTDOOR UNIT		M4LC 035C	M4LC 040C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 /3 / 50>	
	CAPACITOR - 1Ø / <3Ø>	µF	60.0	60.0 / <NIL>
	RATED INPUT POWER - 1Ø / <3Ø>	W	2987	3447 / <3741>
	RATED RUNNING CURRENT - 1Ø / <3Ø>	A	14.1	16.3 / <6.3>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	97	114 / <50>

MODEL	INDOOR UNIT		MCM 050D	MCM 062C
	OUTDOOR UNIT		M4LC 050C	M4LC 061C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	240	327
	RATED RUNNING CURRENT	A	1.04	1.40
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	241	258
	RATED RUNNING CURRENT	A	1.09	1.20
	MOTOR OUTPUT	W	145	400
	POLES		8	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER	W	4328	5060
	RATED RUNNING CURRENT	A	8.2	8.6
	LOCKED ROTOR AMP.	A	62	74

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

Electrical Data - Cooling only (R407C)

MODEL	INDOOR UNIT		MCM 020DR	MCM 025DR
	OUTDOOR UNIT		M4LC 020BR	M4LC 025BR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	96	130
	RATED RUNNING CURRENT	A	0.40	0.58
	MOTOR OUTPUT	W	40	65
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	133	
	RATED RUNNING CURRENT	A	0.56	
	MOTOR OUTPUT	W	55	
	POLES		6	
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>	
	CAPACITOR - 1Ø / <3Ø>	µF	45.0 / <NIL>	50.0 / <NIL>
	RATED INPUT POWER (COOLING) - 1Ø / <3Ø>	W	2002 / <1893>	2571 / <2508>
	RATED INPUT POWER (HEATING) - 1Ø / <3Ø>	W	2096 / <1903>	2549 / <2570>
	RATED RUNNING CURRENT (COOLING) - 1Ø / <3Ø>	A	9.5 / <3.6>	12.6 / <4.8>
	RATED RUNNING CURRENT (HEATING) - 1Ø / <3Ø>	A	10.1 / <3.6>	12.5 / <4.9>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	54 / <21>	58 / <26>

MODEL	INDOOR UNIT		MCM 030DR
	OUTDOOR UNIT		M4LC 030CR
INDOOR MOTOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	132
	RATED RUNNING CURRENT	A	0.58
	MOTOR OUTPUT	W	65
	POLES		4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	241
	RATED RUNNING CURRENT	A	1.09
	MOTOR OUTPUT	W	145
	POLES		8
COMPRESSOR	INSULATION GRADE		-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 / 3 / 50>
	CAPACITOR - 1Ø / <3Ø>	µF	50.0 / <NIL>
	RATED INPUT POWER (COOLING) - 1Ø / <3Ø>	W	2320 / <2414>
	RATED INPUT POWER (HEATING) - 1Ø / <3Ø>	W	2510 / <2388>
	RATED RUNNING CURRENT (COOLING) - 1Ø / <3Ø>	A	11.0 / <4.3>
	RATED RUNNING CURRENT (HEATING) - 1Ø / <3Ø>	A	11.6 / <4.2>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	82 / <40>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
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Electrical Data - Heat Pump (R407)

MODEL	INDOOR UNIT		MCM 040DR	
	OUTDOOR UNIT		M4LC 035CR	M4LC 040CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 <380 - 415 /3 / 50>	
	CAPACITOR - 1Ø / <3Ø>	µF	60.0	60.0 / <NIL>
	RATED INPUT POWER (COOLING) - 1Ø / <3Ø>	W	2987	3457 / <3565>
	RATED INPUT POWER (HEATING) - 1Ø / <3Ø>	W	2757	3187 / <3280>
	RATED RUNNING CURRENT (COOLING) - 1Ø / <3Ø>	A	14.1	16.4 / <6.2>
	RATED RUNNING CURRENT (HEATING) - 1Ø / <3Ø>	A	13.0	15.0 / <5.9>
	LOCKED ROTOR AMP. - 1Ø / <3Ø>	A	97	114 / <50>

MODEL	INDOOR UNIT		MCM 050DR	MCM 062CR
	OUTDOOR UNIT		M4LC 050CR	M4LC 061CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	240	327
	RATED RUNNING CURRENT	A	1.04	1.40
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	241	258
	RATED RUNNING CURRENT	A	1.09	1.20
	MOTOR OUTPUT	W	145	400
	POLES		8	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER (COOLING)	W	4615	5060
	RATED INPUT POWER (HEATING)	W	3734	4560
	RATED RUNNING CURRENT (COOLING)	A	8.8	8.6
	RATED RUNNING CURRENT (HEATING)	A	7.8	8.1
	LOCKED ROTOR AMP.	A	62	74

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Electrical Data - Cooling only (R410A)

MODEL	INDOOR UNIT		M5CM 040D	
	OUTDOOR UNIT		M5LC 035C	M5LC 040C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	
	RATED INPUT POWER	W	2675	3440
	RATED RUNNING CURRENT	A	4.9	6.4
	LOCKED ROTOR AMP.	A	48	74

MODEL	INDOOR UNIT		M5CM 050D	M5CM 062C
	OUTDOOR UNIT		M5LC 050C	M5LC 061C
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	171	327
	RATED RUNNING CURRENT	A	0.76	1.40
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS F	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	575	575
	RATED RUNNING CURRENT	A	2.54	2.54
	MOTOR OUTPUT	W	600	600
	POLES		6	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER	W	4220	5512
	RATED RUNNING CURRENT	A	7.6	8.3
	LOCKED ROTOR AMP.	A	74	74

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Electrical Data - Heat Pump (R410A)

MODEL	INDOOR UNIT		M5CM 040DR	
	OUTDOOR UNIT		M5LC 035CR	M5LC 040CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	153	
	RATED RUNNING CURRENT	A	0.68	
	MOTOR OUTPUT	W	100	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	220	
	RATED RUNNING CURRENT	A	1.02	
	MOTOR OUTPUT	W	145	
	POLES		8	
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	
	RATED INPUT POWER (COOLING)	W	2675	3440
	RATED INPUT POWER (HEATING)	W	2475	3450
	RATED RUNNING CURRENT (COOLING)	A	4.9	6.4
	RATED RUNNING CURRENT (HEATING)	A	4.7	5.8
	LOCKED ROTOR AMP.	A	48	74

MODEL	INDOOR UNIT		M5CM 050DR	M5CM 062CR
	OUTDOOR UNIT		M5LC 050CR	M5LC 061CR
INDOOR MOTOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	171	327
	RATED RUNNING CURRENT	A	0.76	1.40
	MOTOR OUTPUT	W	100	80 x 2
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS F	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	575	575
	RATED RUNNING CURRENT	A	2.54	2.54
	MOTOR OUTPUT	W	600	600
	POLES		6	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	380 - 415 / 3 / 50	
	CAPACITOR	µF	NIL	NIL
	RATED INPUT POWER (COOLING)	W	4220	5512
	RATED INPUT POWER (HEATING)	W	3920	5447
	RATED RUNNING CURRENT (COOLING)	A	7.6	8.3
	RATED RUNNING CURRENT (HEATING)	A	7.2	7.1
	LOCKED ROTOR AMP.	A	74	74

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Servicing and Maintenance

Warning: Disconnect from main supply before servicing the air conditioner.

The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedure	Recommended Schedule
Air filter (Indoor Unit)	1. Remove the ionizer filter before cleaning the filter. 2. Remove the dust adhering on the filter by using a vacuum cleaner or wash using water less than 40°C with a neutral cleaning detergent. 3. Rinse and dry it before fitting back the ionizer filter and set it back to unit. **4. Note : Never use petrol thinner, benzene or any other chemicals.**	At least once a month.
Indoor unit	1. Clean away dirt or dust on grille or panel by wiping with soft cloth soaked in lukewarm (or cool) water or neutral detergent solution. **2. Note : Never user petrol, thinner, benzene or other volatile chemicals, which may cause plastic surface to deform**.	At least once a month.
Condense Drain Pan & Pipe	1. Check the cleanliness and clean it if necessary. 2. Check the condensate water flow.	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	If necessary.
Indoor/ Outdoor Coil	1. Check and remove the dirt between the fins. 2. Check and remove any obstacles which hinder air flow through the indoor or outdoor.	Every month.
Power Supply	1. Check the running current and voltage for indoor and outdoor unit. 2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.	Every 2 months. Every year.
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.	Every 6 months.
Compressor Oil	Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motor Oil	All motors are pre-lubricated and sealed at factory.	No maintenance required.

Pre Start Up Maintenance

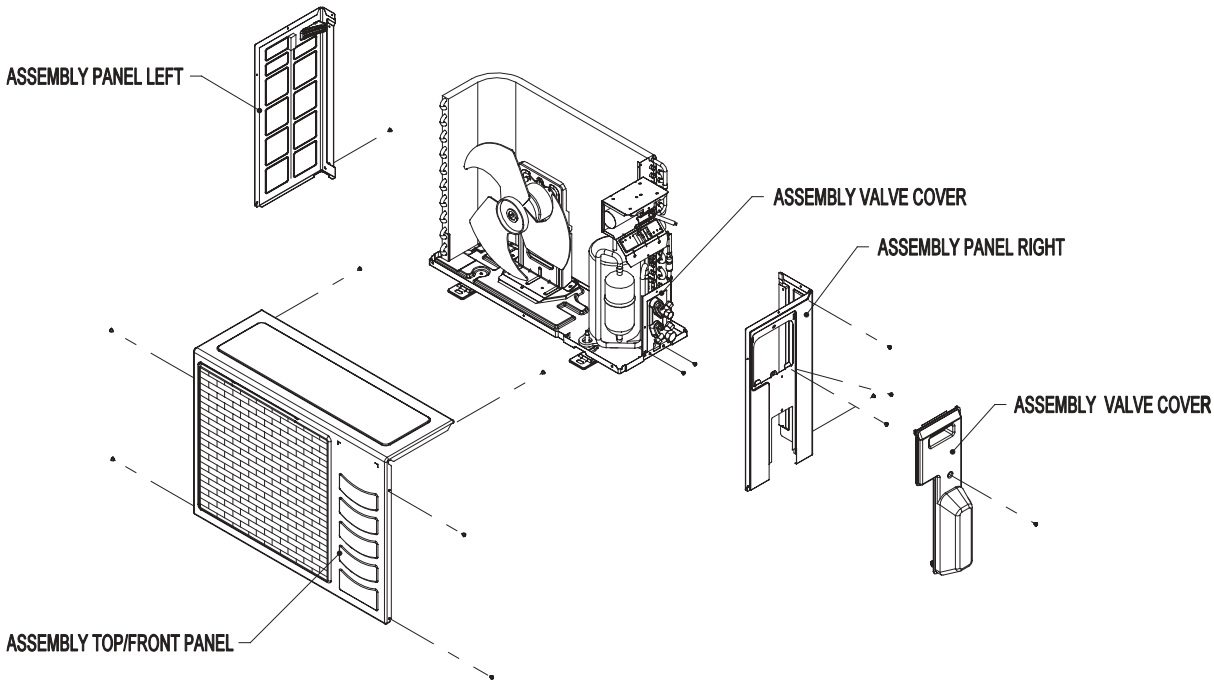
(After Extended Shutdown)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensates drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

For MLC Outdoor Models

The design of the MLC outdoor series allows servicing to be carried out readily and easily. The removal of the top side, front and back panel make almost every part accessible.

Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once quarterly. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once every 3 months. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.

CAUTION!
Do not charge OXYGEN, ACETYLENE OR OTHER FLAMMABLE and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.
The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

No	Fault conditions	Possible causes / corrective actions
1	The air conditioner unit will not resume after power failure.	• The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.
2	The compressor does not operate 3 minutes after the air conditioner unit is started.	• Protection against frequent starting. • Wait for 3 or 4 minutes for the compressor to start operating by it self.
3	The airflow is too slow or room cannot be cooled sufficiently.	• The air filter is dirty. • The doors and windows are opened. • The air suction and discharge of both indoor and outdoor units are clogged or blocked. • The regulated temperature or temperature setting is not low enough.
4	Discharge airflow has bad odor.	• Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor. • Contact your nearest dealer.
5	Condensation on the front air grille of the indoor unit.	• This is caused by air humidity after an extended period of operation. • The set temperature is too low. Increase the temperature setting and operate the unit at high fan speed.
6	Water flowing out from the air conditioner.	• Switch off the unit and contact your nearest dealer. This might be due to tilted installation.
7	Hissing airflow sound from the air conditioner unit during operation.	• Liquid refrigerant flowing into the evaporator coil.
8	The wireless controller display is dim.	• The batteries are discharged. • The batteries are not correctly inserted. • The assembly is not good.
9	Compressor operates continuously.	• Dirty air filter. Clean the air filter. • Temperature setting too low (cooling). Use higher temperature setting. • Temperature setting too high (heating), Use lower temperature setting.
10	No cool air comes out during cooling cycle, or no hot air comes out during heating cycle.	• Temperature setting too high (cooling). Use lower temperature setting. • Temperature setting too low (heating). Use higher temperature setting.
11	On heating cycle, warm air does not come out.	• Unit is in defrost mode. Heating operation will resume after defrost cycle ends.

Diagnostic Guidelines

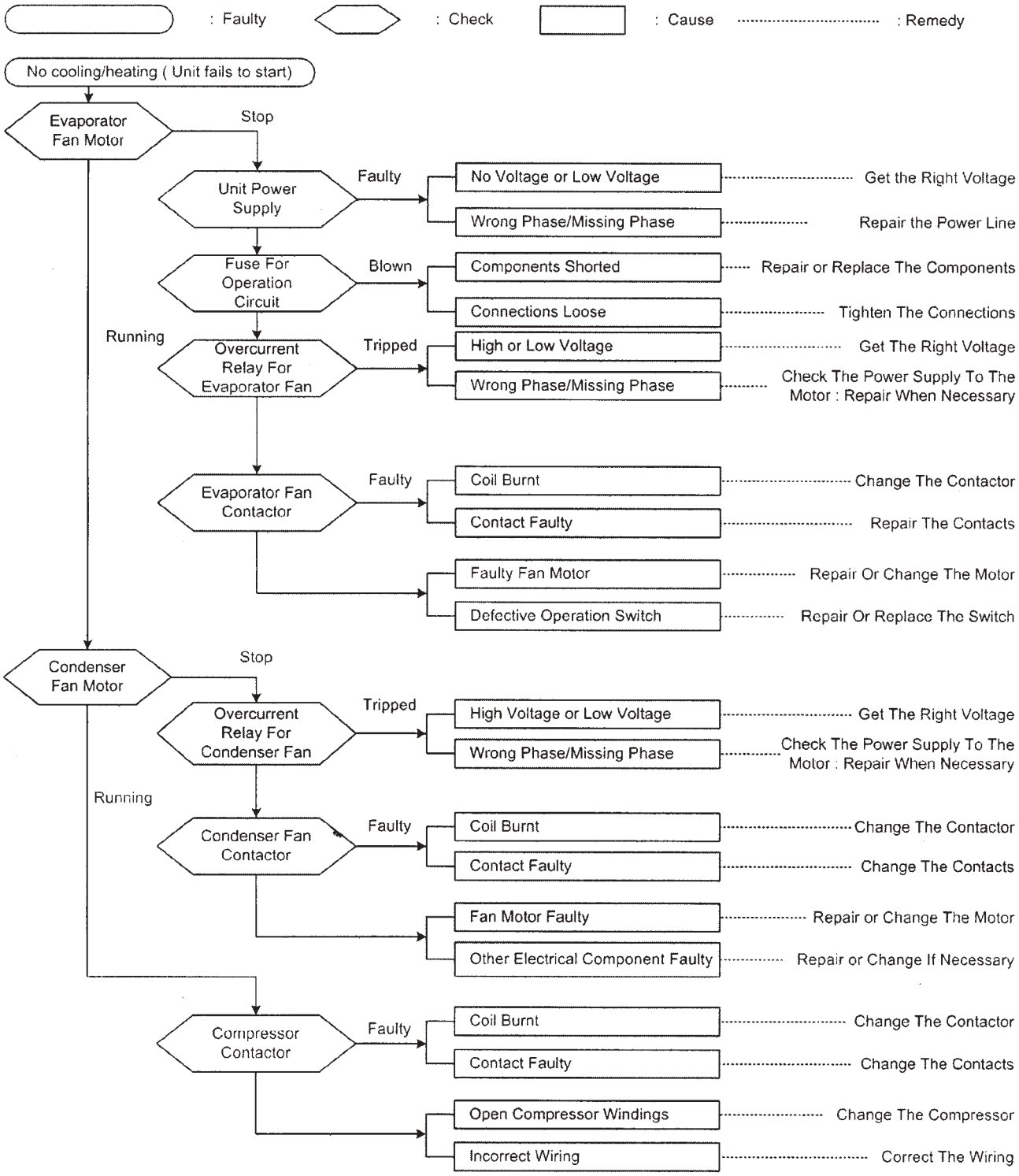
By means of pressure readings:

Data / Circuit	Pressure					Probable cause
	Too low	A little low	Normal	A little high	Too high	
High side **Low side**					• •	1. Overcharged with refrigerant. 2. Non-condensable gases in refrigerant circuit (e.g. air) 3. Obstructed air-intake / discharge. 4. Hot air short circuiting in outdoor unit.
High side **Low side**	•				•	1. Poor compression / no compression (compressor defective) 2. Reversing valve leaking.
High side **Low side**	•	•				1. Undercharged with refrigerant. 2. Refrigerant leakage. 3. Air filter clogged / dirty (indoor unit). 4. Indoor fan locked / seized. 5. Defective defrost control, outdoor coil freeze up (heating). 6. Outdoor fan locked / seized (heating).
High side **Low side**				•	•	1. Outdoor fan blocked (cooling). 2. Outdoor coil dirty (cooling). 3. Indoor fan locked / seized (heating). 4. Indoor air filter clogged / dirty (heating). 5. Non-condensable gases in refrigerant circuit (e.g. air)
High side **Low side**				•	•	1. Air intake temperature of indoor unit too high.

By Means Of Diagnostic Flow Chart :

Generally, there are two kinds of problems, i.e. starting failure and insufficient cooling/heating. “Starting failure” is caused by electrical defect while improper application or defects in refrigerant circuit causes “Insufficient cooling / heating”.

i) Diagnosis of Electric Circuit

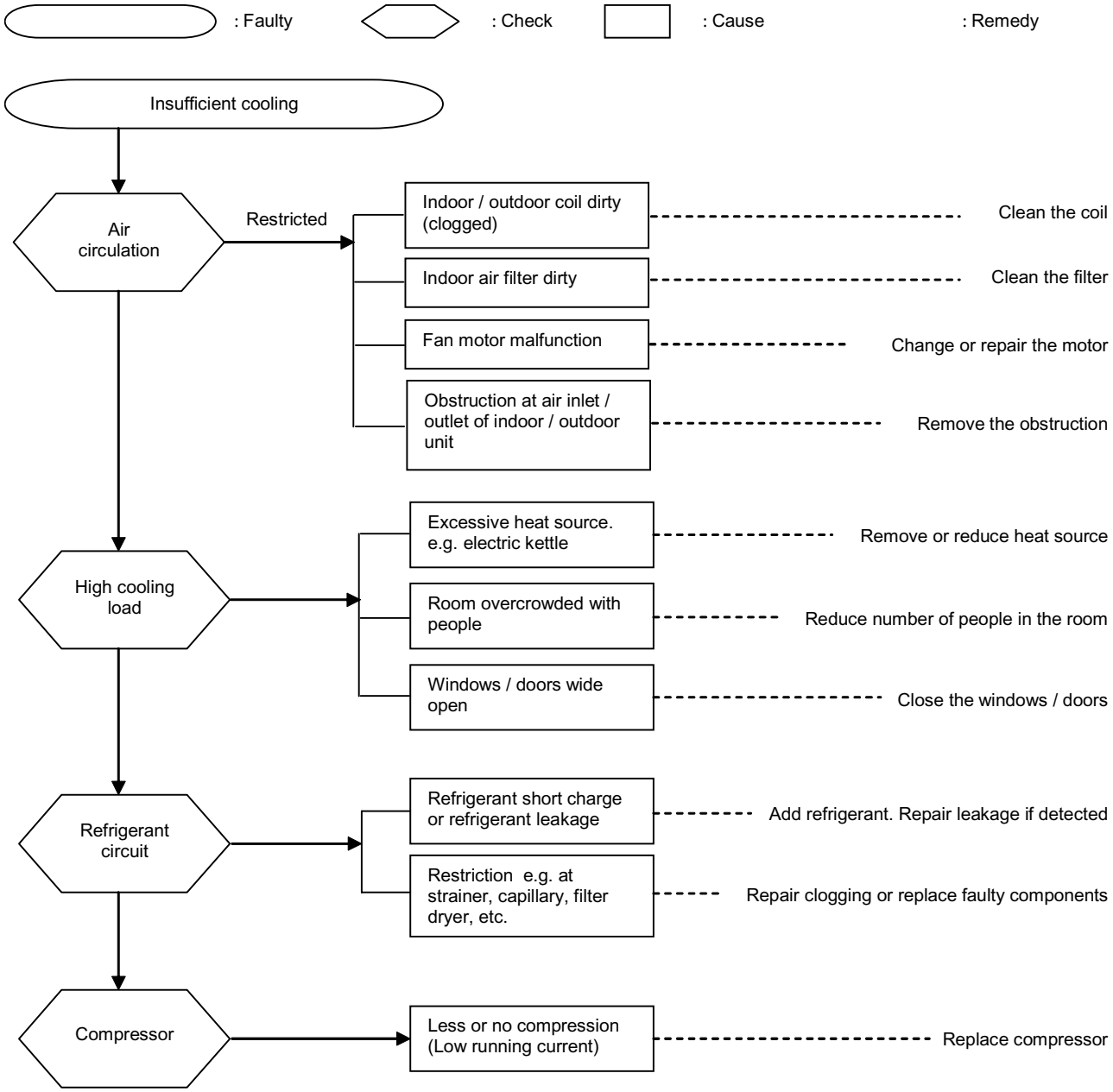


The most common causes of air conditioner failure to “start” are :

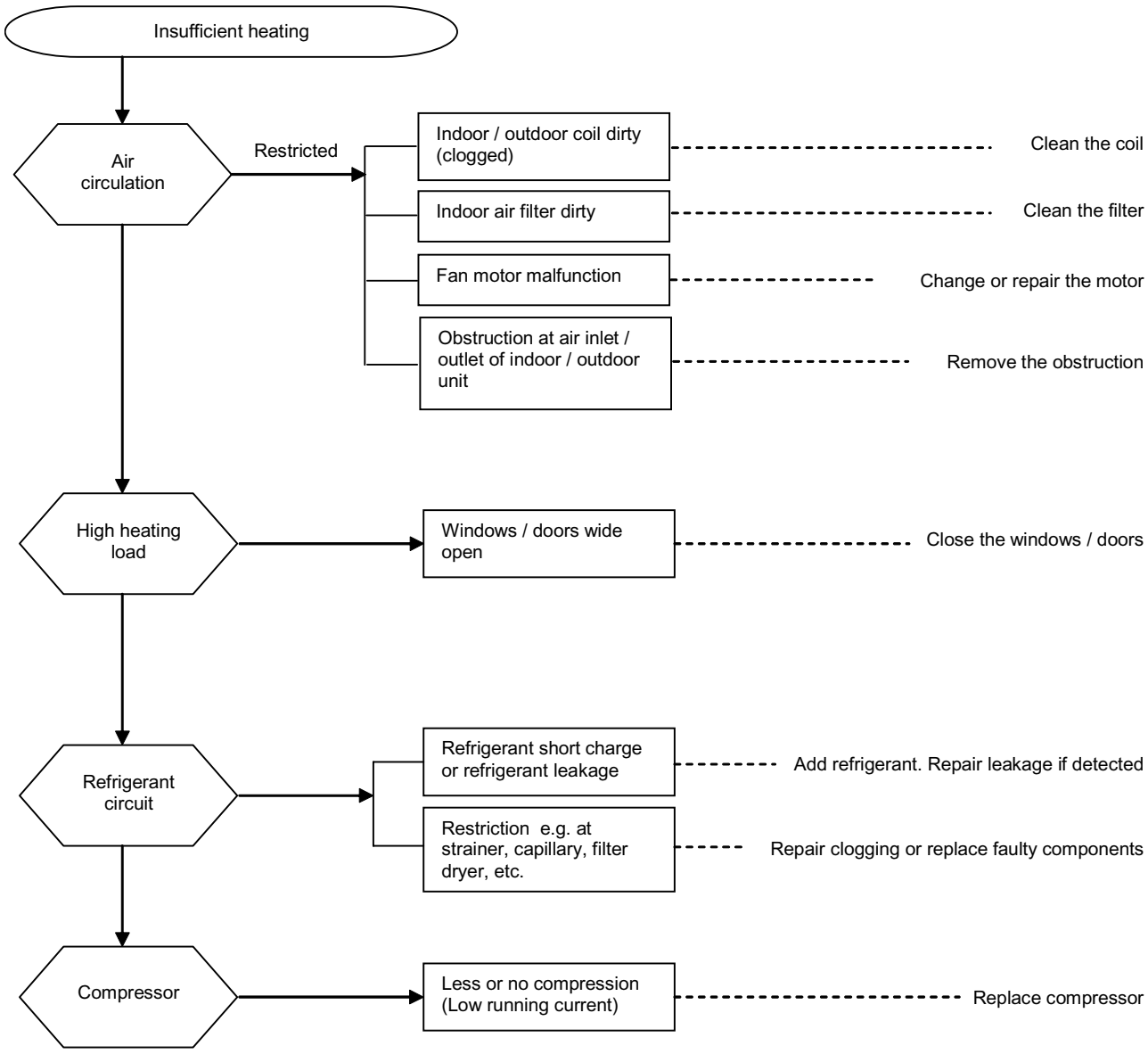
a) Voltage not within ±10% of rated voltage.
b) Power supply interrupted.
c) Improper control settings.
d) Air conditioner is disconnected from main power source.
e) Fuse blown or circuit breaker off.

ii) Diagnosis of Refrigerant Circuit / Application

There might be some causes where the unit starts running but does not perform satisfactorily, i.e. insufficient cooling. Judgement could be made by measuring temperature difference of indoor unit's intake and discharge air as well as running current.


: Faulty
: Check
: Cause
: Remedy
Insufficient cooling
Air circulation
Restricted
Indoor / outdoor coil dirty (clogged)
Clean the coil
Indoor air filter dirty
Clean the filter
Fan motor malfunction
Change or repair the motor
Obstruction at air inlet / outlet of indoor / outdoor unit
Remove the obstruction
High cooling load
Excessive heat source. e.g. electric kettle
Remove or reduce heat source
Room overcrowded with people
Reduce number of people in the room
Windows / doors wide open
Close the windows / doors
Refrigerant circuit
Refrigerant short charge or refrigerant leakage
Add refrigerant. Repair leakage if detected
Restriction e.g. at strainer, capillary, filter dryer, etc.
Repair clogging or replace faulty components
Compressor
Less or no compression (Low running current)
Replace compressor

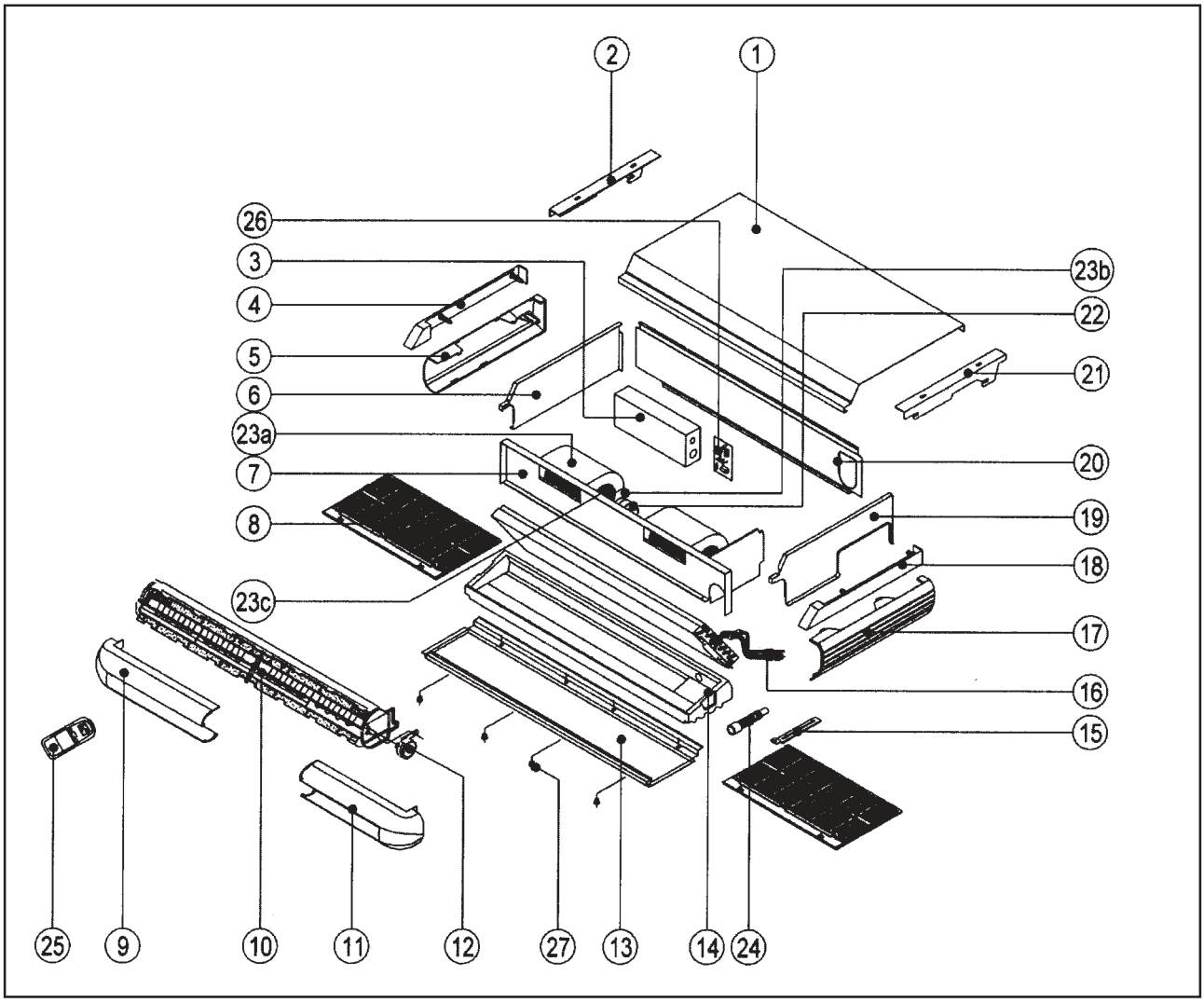
Satisfactory operation with temperature difference of air intake & discharge of indoor unit 8°C to 13°C. *
(* value is for reference only)


Insufficient heating
Air circulation
Restricted
Indoor / outdoor coil dirty (clogged)
Clean the coil
Indoor air filter dirty
Clean the filter
Fan motor malfunction
Change or repair the motor
Obstruction at air inlet / outlet of indoor / outdoor unit
Remove the obstruction
High heating load
Windows / doors wide open
Close the windows / doors
Refrigerant circuit
Refrigerant short charge or refrigerant leakage
Add refrigerant. Repair leakage if detected
Restriction e.g. at strainer, capillary, filter dryer, etc.
Repair clogging or replace faulty components
Compressor
Less or no compression (Low running current)
Replace compressor

Satisfactory operation with temperature difference of air intake & discharge of indoor unit 14°C to 20°C. *
(* value is for reference only)

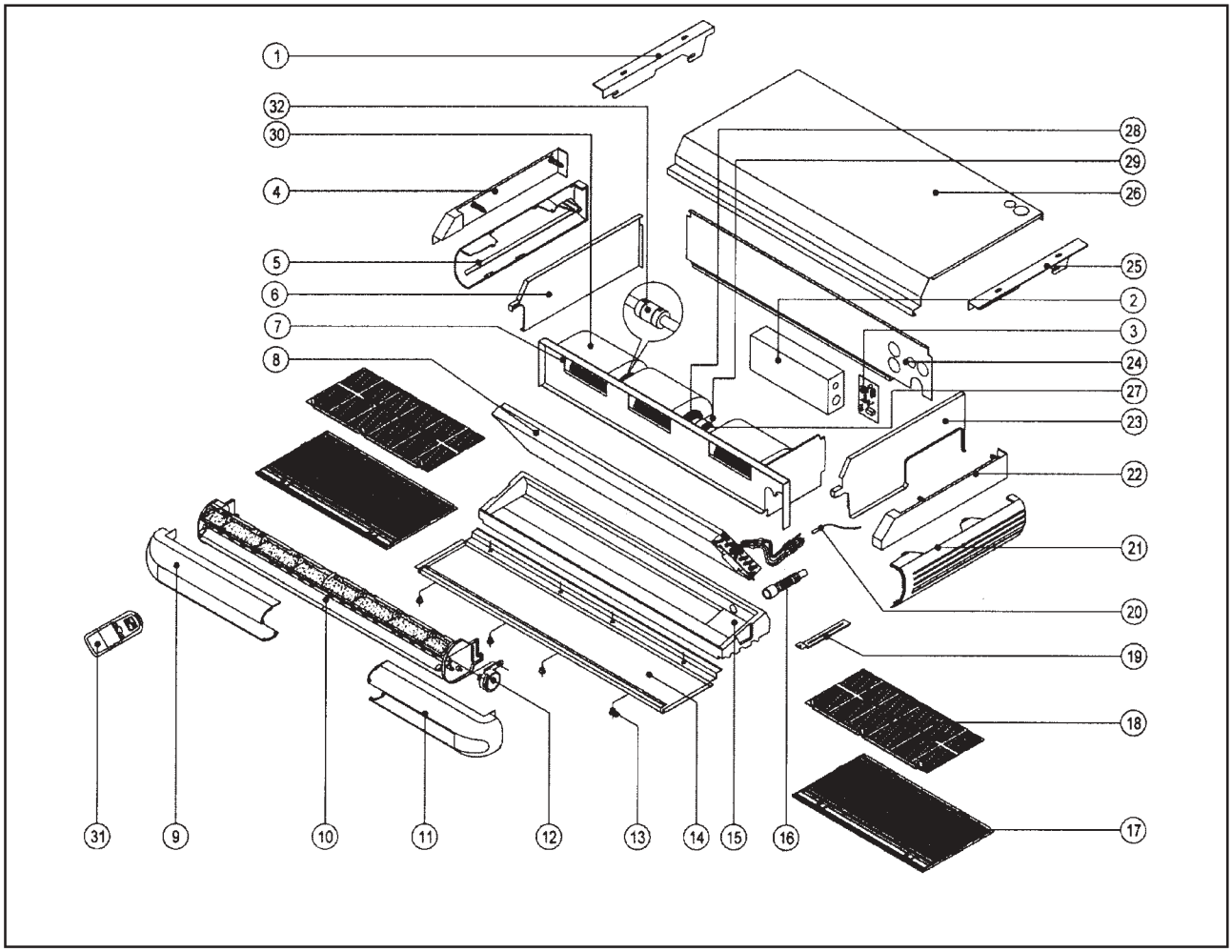
Exploded View and Parts List

Model : MCM 020 / 025 D/DR



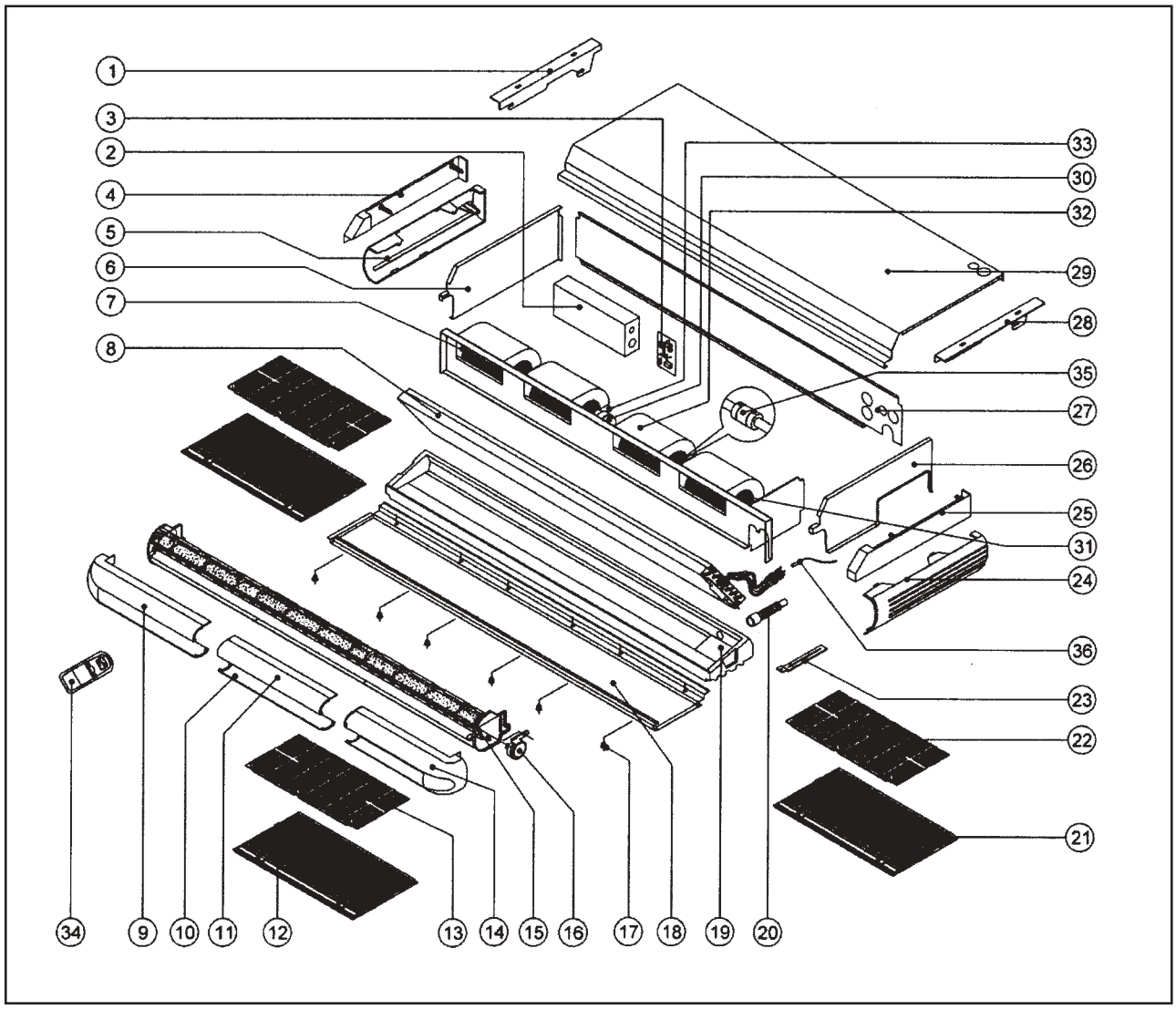
NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	TOP PANEL	16	COIL ASSY
2	HANGER BRACKET – LEFT	17	SIDE FRAME ASSY-RIGHT
3	CONTROL BOX	18	CLOSE UP, SIDE RIGHT
4	CLOSE UP, SIDE PANEL	19	COIL HOLDER ASSY – RIGHT
5	SIDE FRAME ASSY – LEFT	20	BACK PANEL
6	COIL HOLDER ASSY – LEFT	21	HANGER BRACKET - RIGHT
7	FAN DECK	22	FAN MOTOR
8	AIR INTAKE GRILLE ASSY	23a	BLOWER HOUSING, TOP
9	FRONT FRAME – LEFT	23b	BLOWER HOUSING, BOTTOM
10	LOUVER ASSY	23c	BLOWER WHEEL
11	FRONT FRAME – RIGHT	24	DRAIN HOSE ASSY
12	AIR SWIND MOTOR ASSY	25	LCD HANDSET
13	BOTTOM PANEL	26	PCB
14	DRAIN PAN ASSY	27	AIR INTAKE GRILLE FRAME HOLDER ASSY
15	CENTRE SUPPORT BRACKET		

Model : MCM 030 D/DR



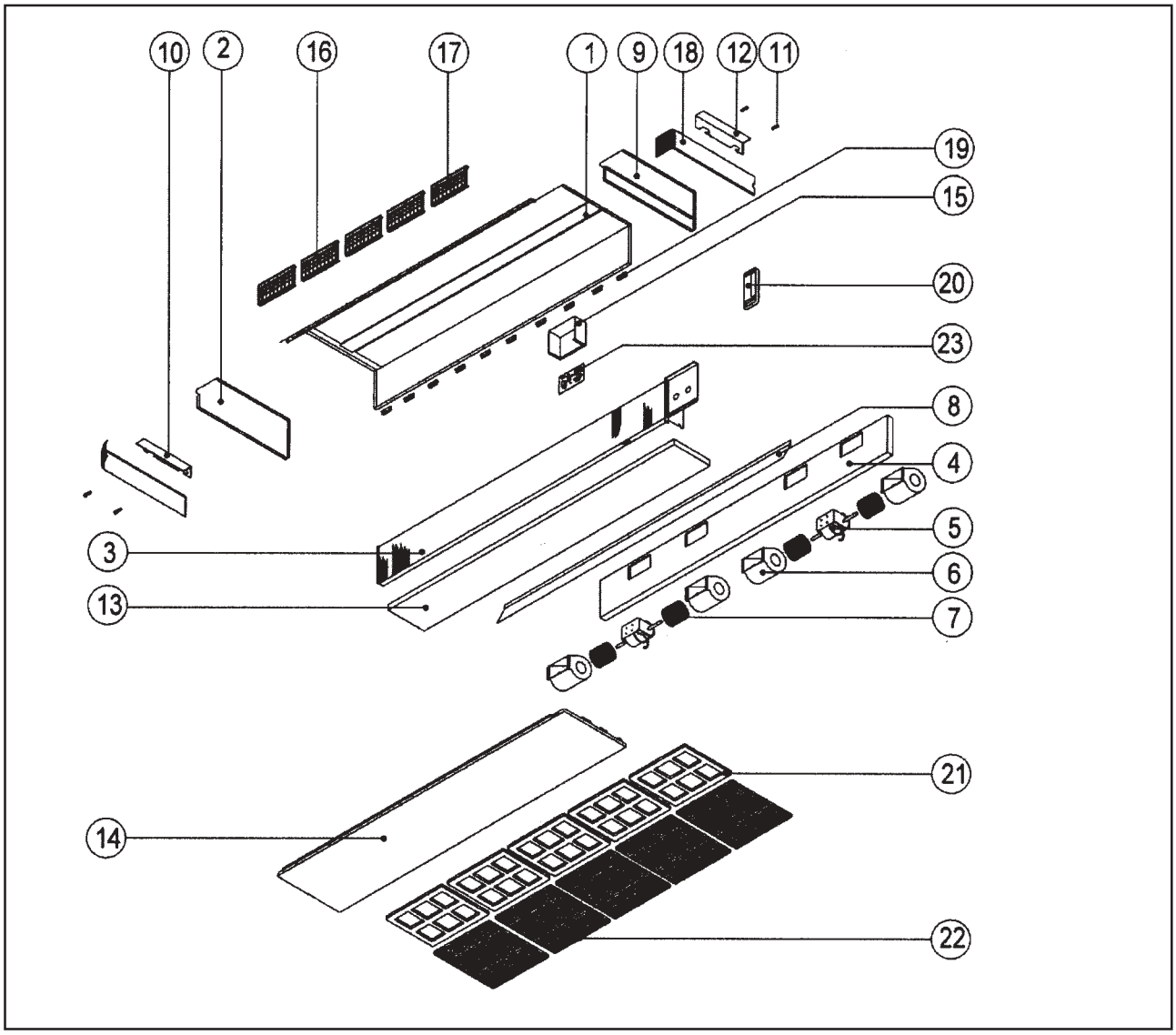
NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	BRACKET HANGER, LEFT	17	GRILLE, AIR INTAKE
2	TERMINAL BOX COVER	18	ASSY, FILTER FRAME LEFT/RIGHT
3	PCB	19	BRACKET CENTRE SUPPORT
4	CLOSE UP, LEFT	20	THERMISTER
5	FRAME, SIDE LEFT	21	FRAME, SIDE RIGHT
6	ASSY, COIL HOLDER LEFT	22	CLOSE UP, RIGHT
7	FAN DECK	23	ASSY, COIL HOLDER RIGHT
8	COIL ASSY	24	BACK PANEL
9	FRAME, FRONT LEFT	25	BRACKET HANGER, RIGHT
10	ASSY, LOUVER BOTTOM	26	TOP PANEL
11	FRAME, FRONT RIGHT	27	FAN MOTOR
12	AIR SWING MOTOR ASSY	28	BLOWER WHEEL
13	AIR INTAKE GRILLE FRAME HOLDER ASSY	29	HOUSING BLOWER, BOTTOM
14	BOTTOM PANEL	30	HOUSING BLOWER, TOP
15	DRAIN PAN ASSY	31	LCD HANDSET
16	DRAIN HOSE ASSY	32	RUBBER COUPLING

Model : MCM / M5CM 040 / 050 D/DR



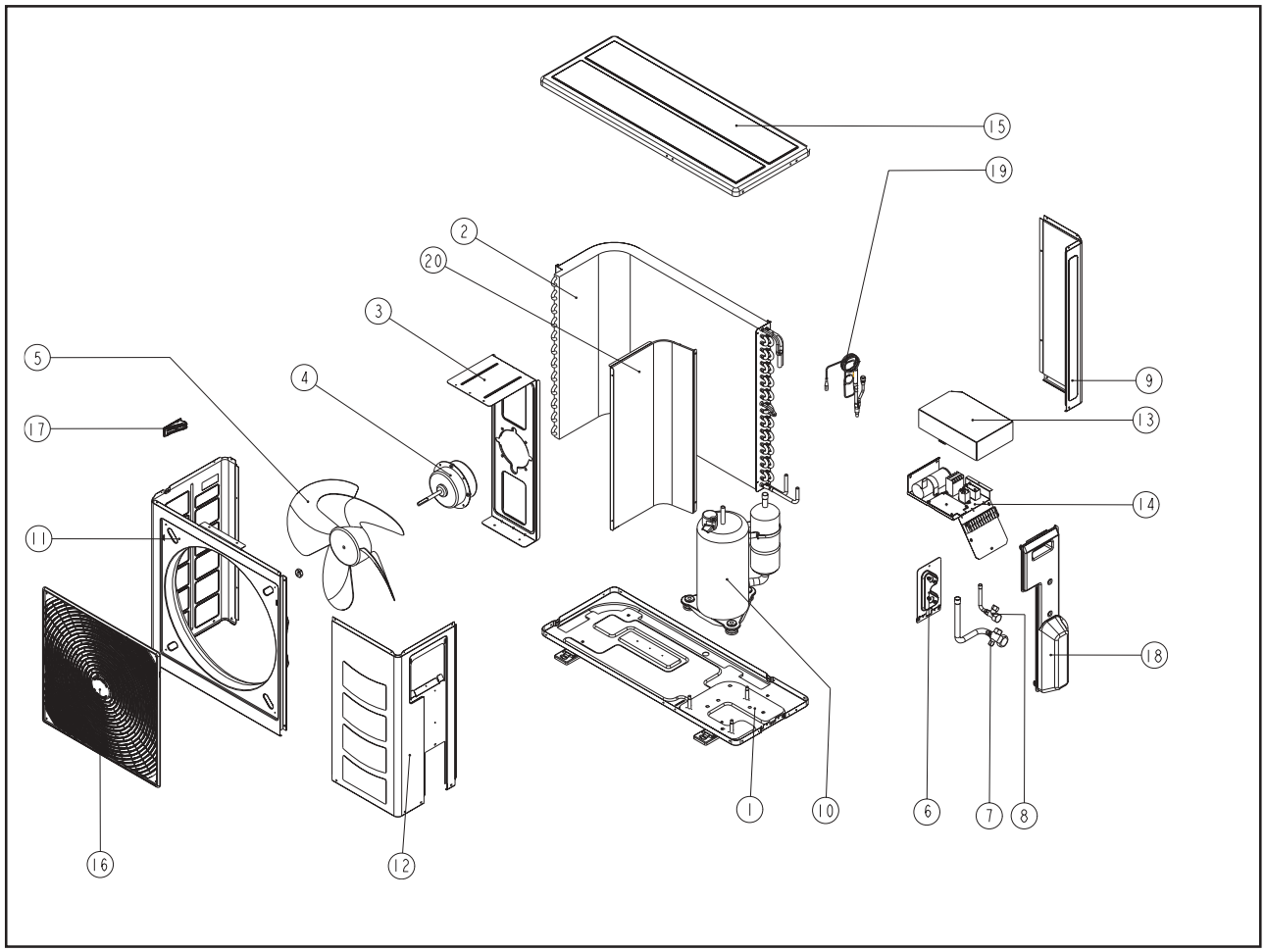
NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	BRACKET HANGER, LEFT	19	DRAIN PAN ASSY
2	TERMINAL BOX COVER	20	DRAIN HOSE ASSY
3	PCB	21	AIR INTAKE GRILLE ASSY
4	CLOSE UP, LEFT	22	AIR INTAKE GRILLE ASSY
5	FRAME, SIDE LEFT	23	BRACKET, CENTER SUPPORT
6	ASSY, COIL HOLDER LEFT	24	FRAME, SIDE RIGHT
7	FAN DECK	25	CLOSE UP, RIGHT
8	COIL ASSY	26	ASSY, COIL HOLDER RIGHT
9	FRAME, FRONT LEFT	27	BACK PANEL
10	FRONG BOTTOM CENTER	28	BRACKET HANGER, RIGHT
11	FRONT TOP CENTRE	29	TOP PANEL
12	AIR INTAKE GRILLE CENTER ASSY	30	FAN MOTOR
13	AIR INTAKE GRILLE CENTER ASSY	31	BLOWER WHEEL
14	FRAME, FRONT RIGHT	32	HOUSING BLOWER, TOP
15	ASSY, LOUVER BOTTOM	33	HOUSING BLOWER, BOTTOM
16	AIR SWING MOTOR ASSY	34	LCD HANDSET
17	AIR INTAKE GRILLE FRAME HOLDER ASSY	35	RUBBER COUPLING
18	BOTTOM PANEL	36	THERMISTER

Model : MCM / M5CM 062 C/CR



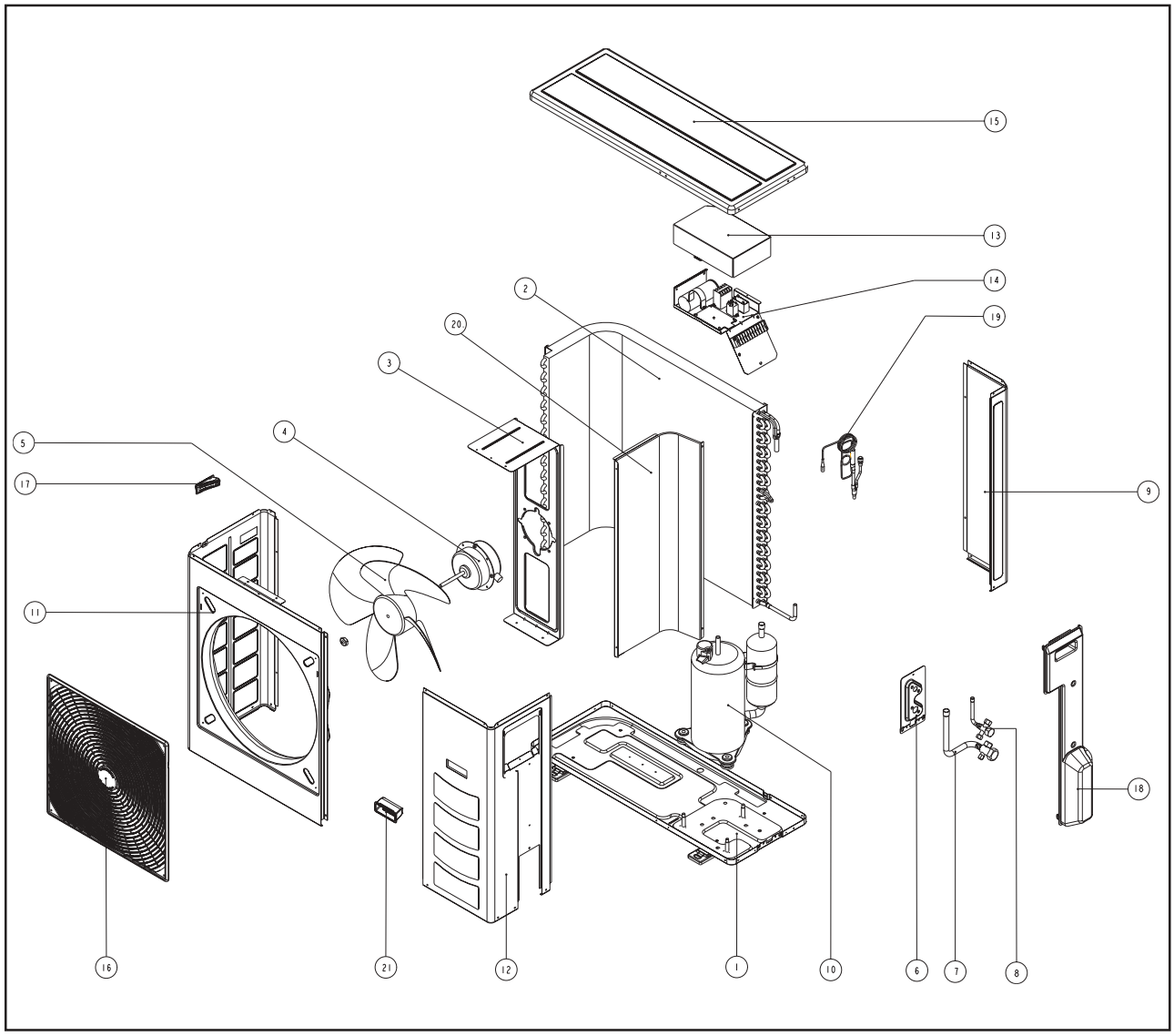
NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	TOP BACK PANEL	13	DRAIN PAN
2	COIL HOLDER LEFT	14	BOTTOM PANEL
3	COIL ASSY	15	TERMINAL BOX
4	FAN DECK	16	FRONT FRAME (PLAIN)
5	MOTOR	17	FRONT FRAME (WITH LED INDICATORS)
6	BLOWER HOUSING & WHEEL	18	SIDE PANEL
7	RUBBER COUPLING	19	HOOK 4 x 14mm
8	BRACKET, FAN DECK	20	LCD HANDSET
9	COIL HOLDER RIGHT	21	AIR INTAKE GRILLE C/W FILTER
10	BRACKET LEFT, HANGER W/PAINT	22	AIR INTAKE GRILLE C/W FILTER
11	BOLT, DOME HEAD HEX.	23	PCB
12	BRACKET RIGHT, HANGER W/PAINT		

Model : MLC 018 / 020C



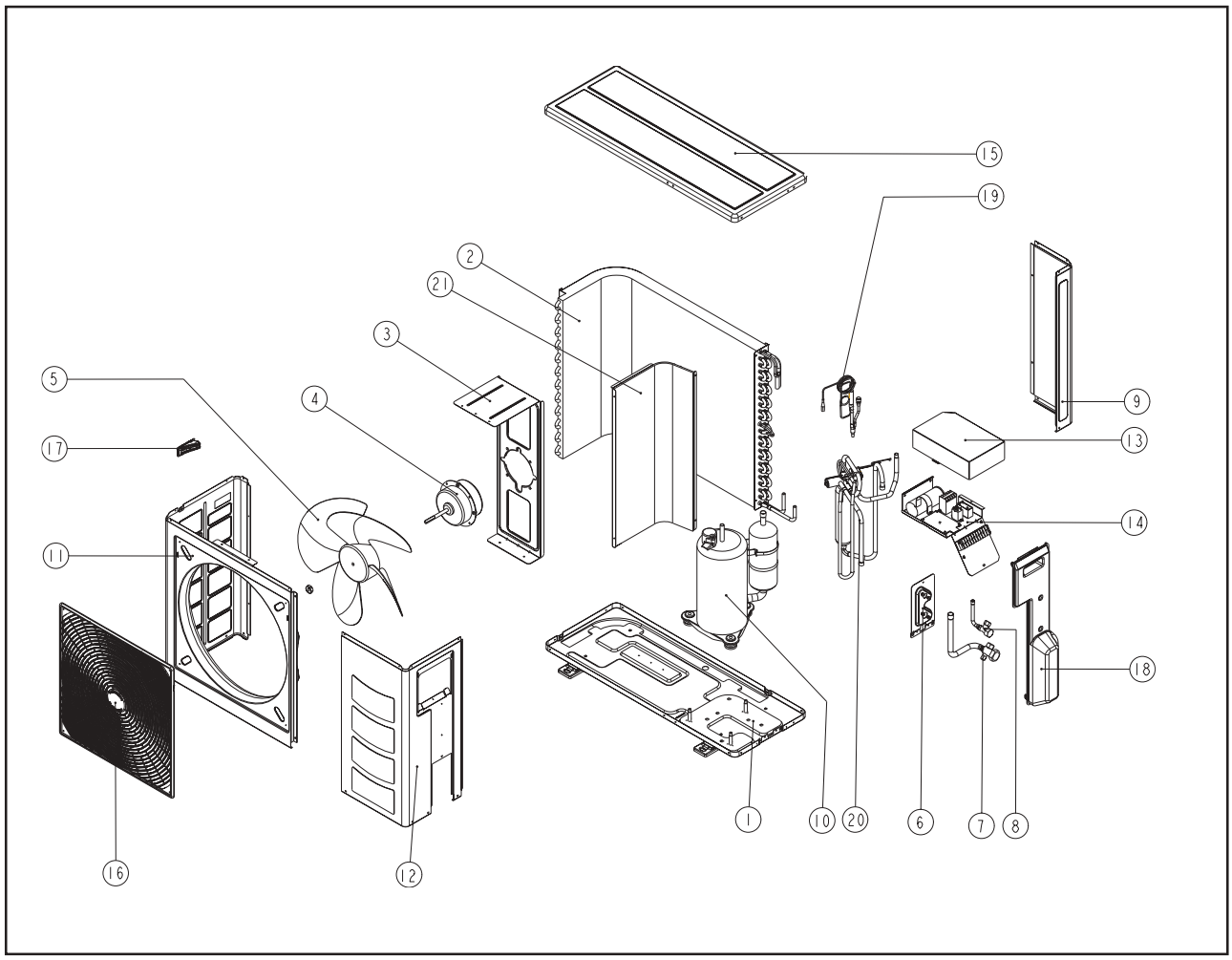
No	Description	No	Description
1	Assy, Base Pan	11	Front Panel, Left
2	Assy, Outdoor Coil	12	Service Panel
3	Motor Bracket	13	Terminal Cover Panel
4	Fan Motor	14	Assy, Control Panel
5	Fan Blade	15	Top Panel
6	Valve Bracket	16	Assy, Front Grille
7	Assy, Flare Valve 3 Ways	17	Plastic Handle
8	Assy, Flare Valve 2 Ways	18	Assy, Valve Cover
9	Back Panel, Right	19	Assy, Cap Tube
10	Compressor	20	Partition

Model : MLC 025 / 028C



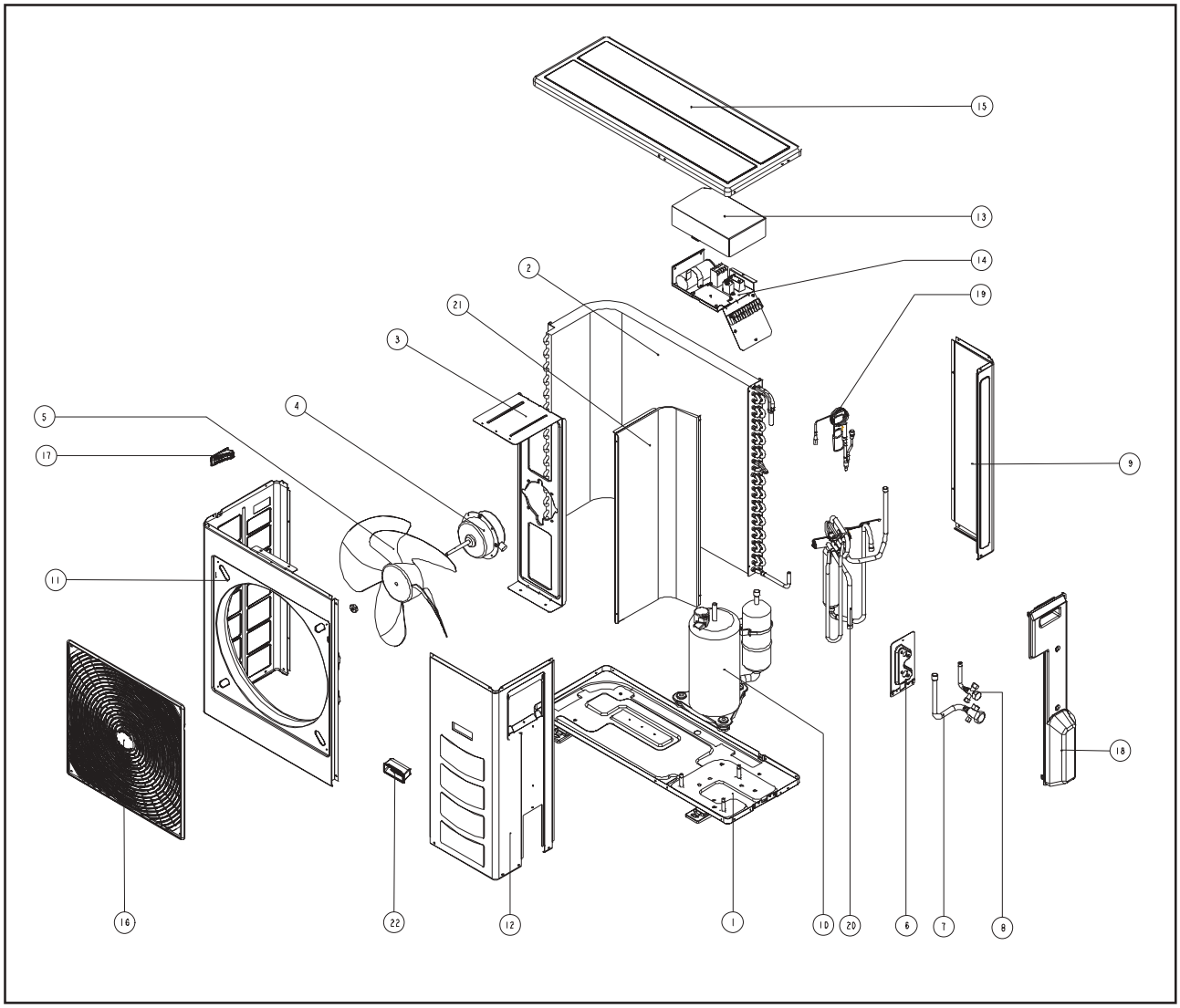
No	Description	No	Description
1	Assy, Base Pan	11	Front Panel, Left
2	Assy, Outdoor Coil	12	Service Panel
3	Motor Bracket	13	Terminal Cover Panel
4	Fan Motor	14	Assy, Control Panel
5	Fan Blade	15	Top Panel
6	Valve Bracket	16	Assy, Front Grille
7	Assy, Flare Valve 3 Ways	17	Plastic Handle, Side
8	Assy, Flare Valve 2 Ways (MLC/M5LC 025C)	18	Assy, Valve Cover
	Assy, Flare Valve 3 Ways (MLC 028C)	19	Assy, Cap Tube
9	Back Panel, Right	20	Partition
10	Compressor	21	Plastic, Handle, Front

Model : MLC 020CR



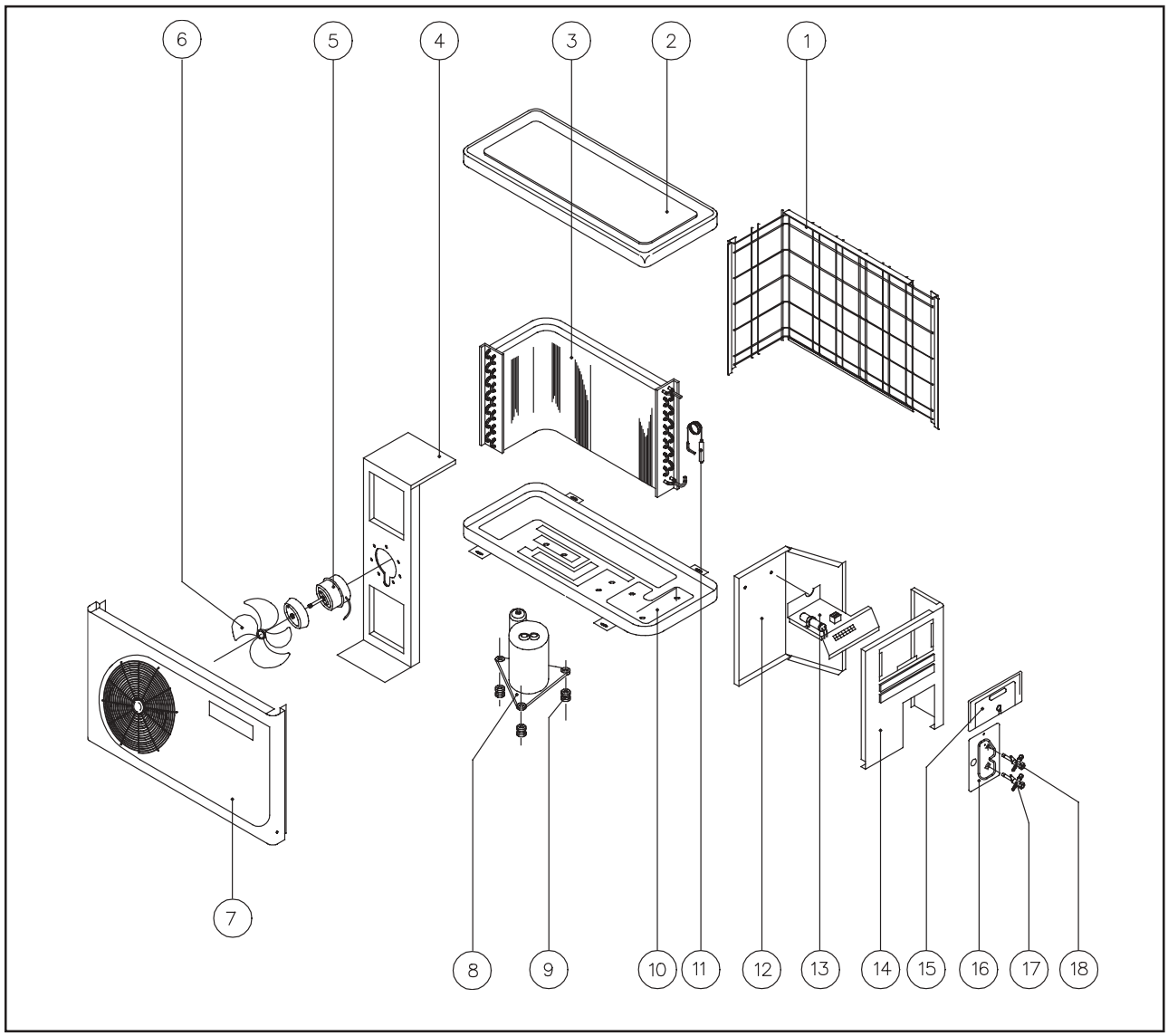
No	Description	No	Description
1	Assy, Base Pan	12	Service Panel
2	Assy, Outdoor Coil	13	Terminal Cover Panel
3	Motor Bracket	14	Assy, Control Panel
4	Fan Motor	15	Top Panel
5	Fan Blade	16	Assy, Front Grille
6	Valve Bracket	17	Plastic Handle
7	Assy, Flare Valve 3 Ways	18	Assy, Valve Cover
8	Assy, Flare Valve 2 Ways	19	Assy, Cap Tube
9	Back Panel, Right	20	Assy, 4 Way Valve
10	Compressor	21	Partition
11	Front Panel, Left		

Model : MLC 025 / 028CR



No	Description	No	Description
1	Assy, Base Pan	12	Service Panel
2	Assy, Outdoor Coil	13	Terminal Cover Panel
3	Motor Bracket	14	Assy, Control Panel
4	Fan Motor	15	Top Panel
5	Fan Blade	16	Assy, Front Grille
6	Valve Bracket	17	Plastic Handle, Side
7	Assy, Flare Valve 3 Ways	18	Assy, Valve Cover
8	Assy, Flare Valve 2 Ways (MLC/M5LC 025CR)	19	Assy, Cap Tube
	Assy, Flare Valve 3 Ways (MLC 028CR)	20	Assy, 4 Way Valve
9	Back Panel, Right	21	Partition
10	Compressor	22	Plastic Handle, Front
11	Front Panel, Left		

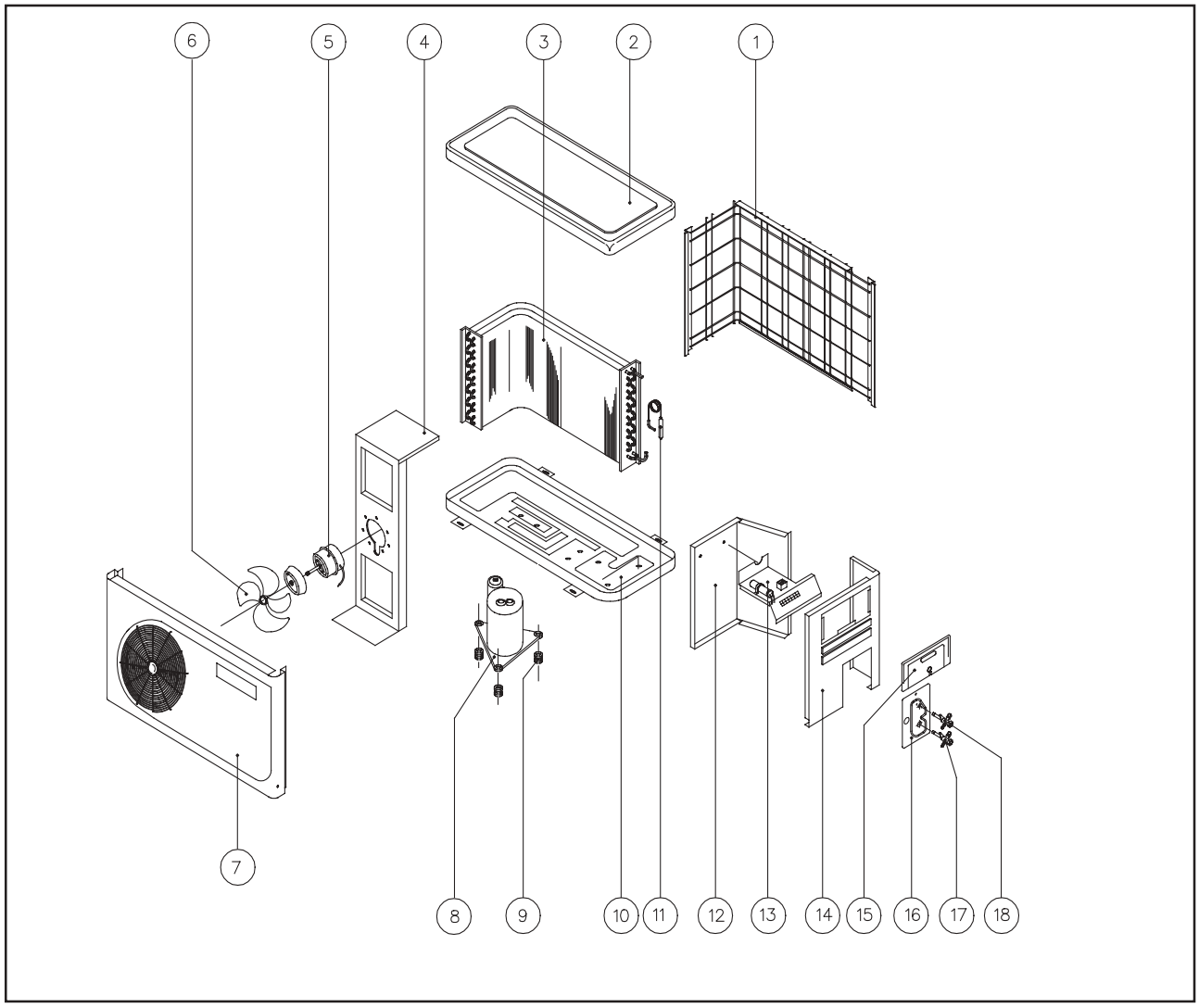
Model : MLC / M4LC 020 / 025B



No	Description	No	Description
1	Back Grille	11	Assy, Cap. Tube
2	Top Panel	12	Assy, Partition
3	Assy, Condenser Coil	13	Assy, Terminal Box Panel
4	Bracket, Motor Mounting	14	Assy, Side Panel
5	Fan Motor	15	Assy, Access Panel
6	Fan Blade	16	Flare Valve Mounting Plate
7	Assy, Front Panel	17	Flare Valve 3-Way 5/8"
8	Compressor	18	Flare Valve 2-Way 1/4" (MLC/M4LC 020B)
9	Rubber Grommet		Flare Valve 3-Way 3/8" (MLC/M4LC 025B)
10	Assy, Base Pan		

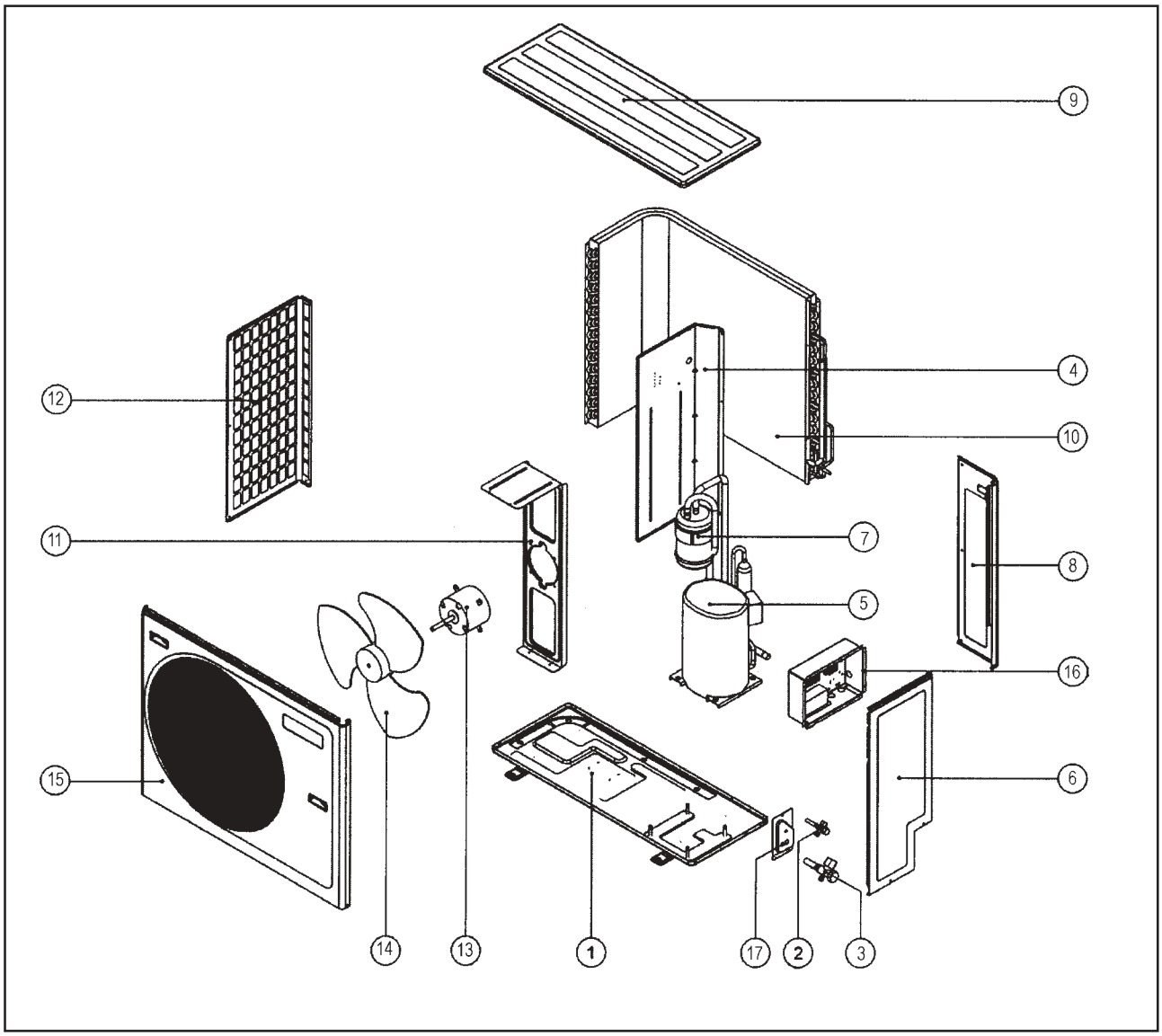
Model : MLC / M4LC 020 / 025BR

.



No	Description	No	Description
1	Back Grille	12	Assy, Restrictor Valve
2	Top Panel	13	Assy, Partition
3	Assy, Condenser Coil	14	Assy, Terminal Box Panel
4	Bracket, Motor Mounting	15	Assy, Side Panel
5	Fan Motor	16	Assy, Access Panel
6	Fan Blade	17	Flare Valve Mounting Plate
7	Assy, Front Panel	18	Flare Valve 3-Way 5/8"
8	Assy, 4 Way Valve	19	Flare Valve 2-Way 1/4" (MLC/M4LC 020BR)
9	Compressor		Flare Valve 3-Way 3/8" (MLC/M4LC 025BR)
10	Rubber Grommet	20	Sensor, Outdoor Defrost
11	Assy, Base Pan		

Model : MLC / M4LC 030 / 035 / 040 / 050 / 061C/CR
M5LC 035 / 040 / 050 / 061C/CR



NO.	PARTS DESCRIPTION	NO.	PARTS DESCRIPTION
1	BASE PAN	11	MOTOR BRACKET ASSY
2	FLARE VALVE	12	SIDE PANEL LEFT
3	FLARE VALVE	13	FAN MOTOR
4	PARTITION	14	FAN BLADE
5	COMPRESSOR	15	FRONT PANEL ASSY
6	ACCESS PANEL	16	TERMINAL BOX ASSY
7	ACCUMULATOR	17	PLATE, FLARE VALVE
8	BACK PANEL		
9	TOP PANEL		
10	COIL ASSY		

Products manufactured in an ISO certified facility.
This document contains the most current product information as of this printing. For the most up-to-date product information, please go to www.mcquayup.com.

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Note : Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning : Moving machinery and electrical power hazard. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

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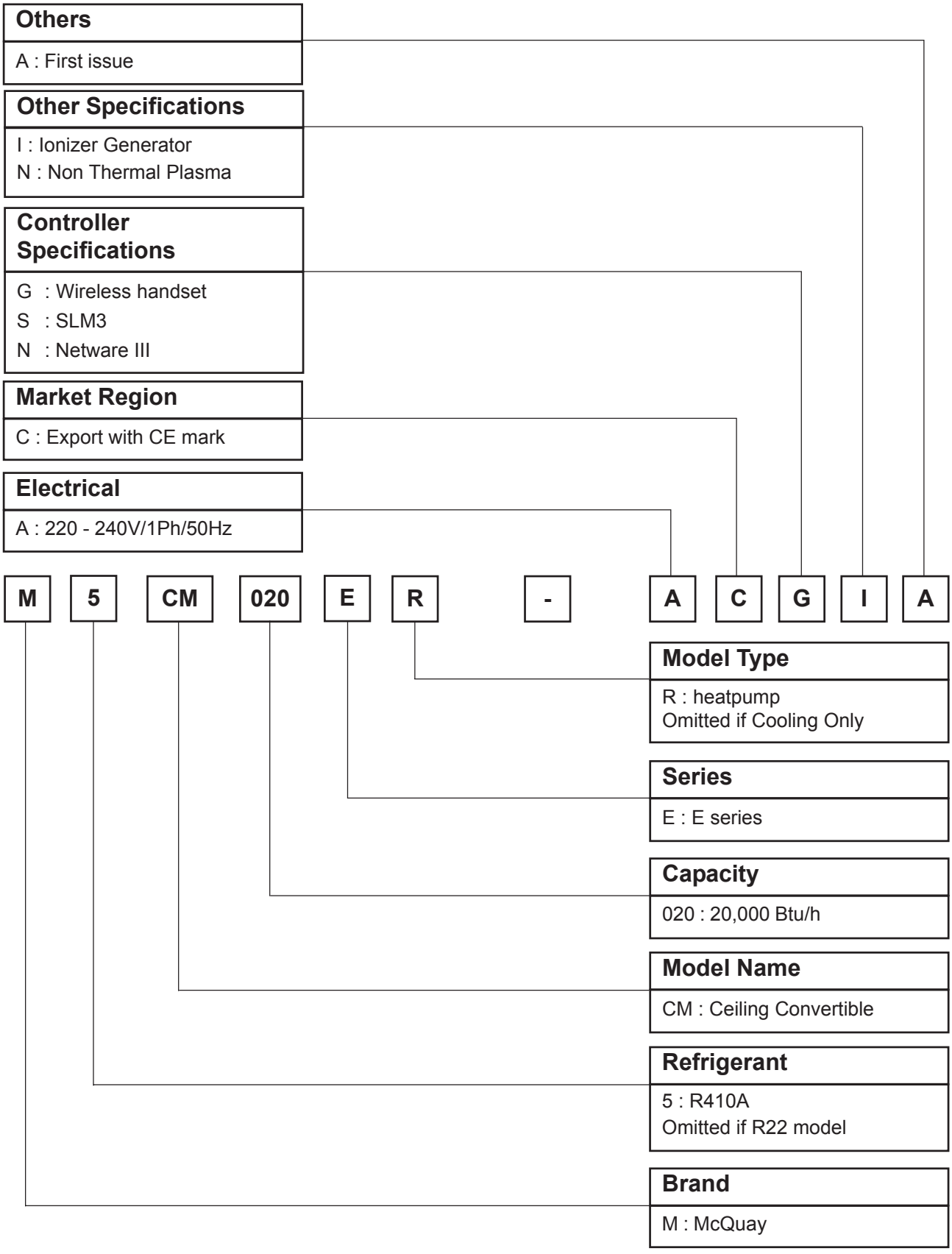
We reserve the right to change design and construction specifications at any time without notice.

CE

Nomenclature

INDOOR



OUTDOOR

Others

A : First issue

Air Treatment Devices & Control

O : Standard unit	I : Gold Fin
B : With Contactor	L : Long Piping Unit
G : Low Ambient Unit	S : With H/L Pressure Switch
H : High ambient unit	X :Oxygen Unit

Contoller Type

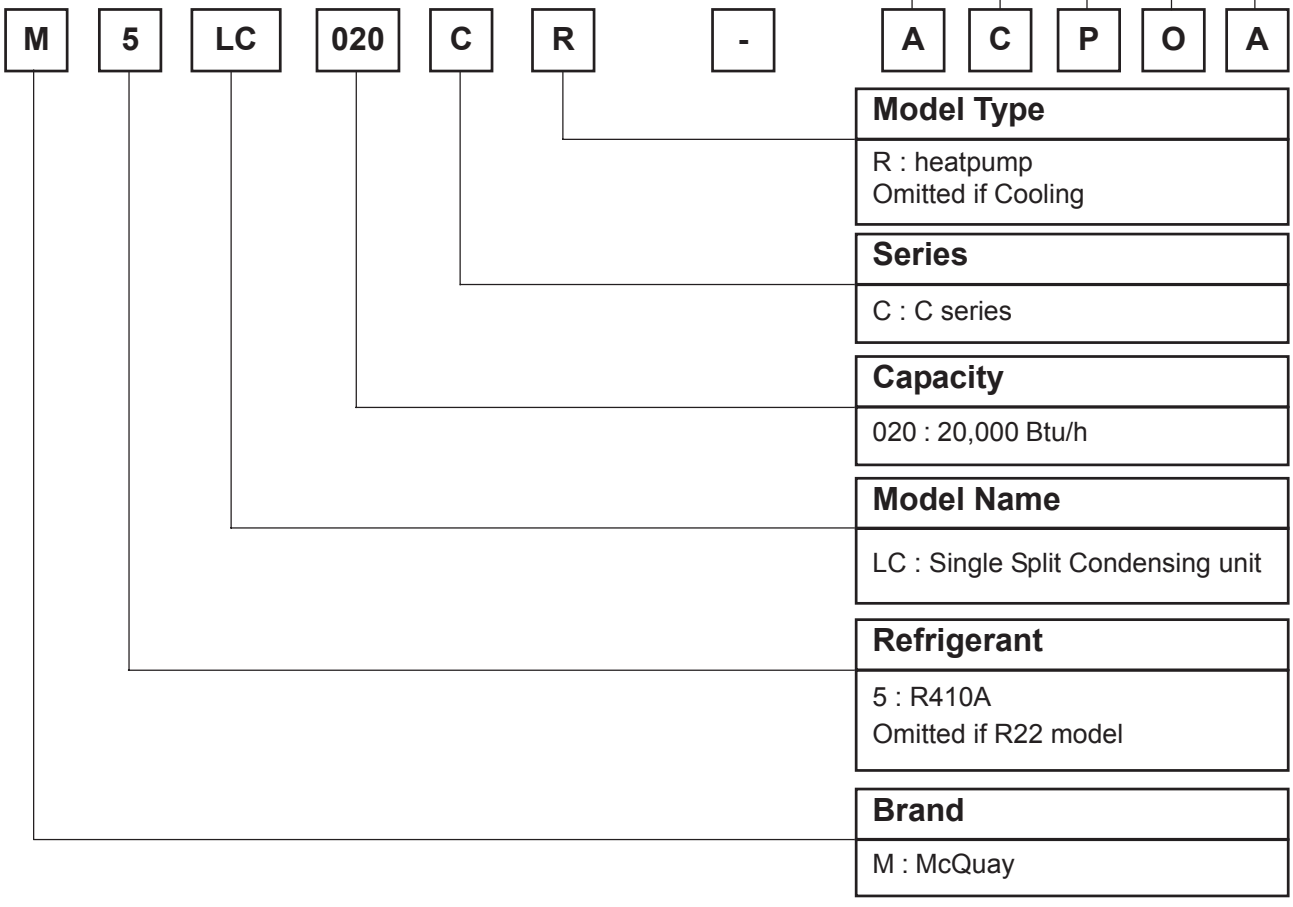
P : Matsushita Rotary	T : Toshiba Rotary
M :Mitsubishi Rotary	

Market Region

C : Export with CE marking
E : Export without marking
U : ETL Spec.

Electrical

A : 220 - 240V/1Ph/50Hz



PRODUCT LINE UP

INDOOR UNIT
MCM-E SERIES PRODUCT LINE UP

MCM		Nomenclature	Classification										
			Control Module	Handset			Marking		Fin	Ionizer	NTP	Refrigerant Control	
			L2	SLM3	Netware III	G11 Handset	CE Mark	W/out Marking	Hydrophilic (SLIT)			Cap. Tube	W/out Cap. Tube
Cooling Model	015E	ACGIA	X			X	X		X	X			X
	020E	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	025E	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	028E	ACGIA	X			X	X		X	X		X	
		ACGNA	X			X	X		X		X	X	
Heat Pump Model	015ER	ACGIA	X			X	X		X	X			X
	020ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	025ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	028ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X

M5CM-E SERIES PRODUCT LINE UP

M5CM		NONMENCLATURE	Classification										
			Control Module	Handset			Marking		Fin	Negative Ionizer	NTP	Refrigerant Control	
			L2	SLM3	Netware III	G11 Handset	CE Mark	W/out Marking	Hydrophilic (SLIT)			Cap. Tube	W/out Cap.Tube
Cooling Model	015E	ACGIA	X			X	X		X	X			X
	020E	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	025E	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	028E	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
Heat Pump Model	015ER	ACGIA	X			X	X		X	X			X
	020ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	025ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X
	028ER	ACGIA	X			X	X		X	X			X
		ACGNA	X			X	X		X		X		X

OUTDOOR UNIT
MLC-C SERIES PRODUCT LINE UP

MLC		Nomenclature	Classification														
			Refrigerant Ctrl + Fin			Special		Safety Devices					Grille	Compressor		Marking	
			Cap. Tube	TXV	Gold Fin	High Ambient Kit	Low Ambient Kit	Contactor	High Pressure Switch	Low Pressure Switch	Nantong Press. SW	Phase Sequencer	Drain Elbow	Copeland Scroll Comp.	Rotary	CE Marking	ETL
Cooling Model	015C	ACPOD	X												X	X	
		ACPID	X		X										X	X	
		ACPBD	X					X							X	X	
		ACPYD	X		X			X							X	X	
	018C	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	020C	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	025C	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	028C	ACPOA													X	X	
		ACPIA			X										X	X	
	030C	AFGE						X	X	X	X			X		X	
		AFGF				X		X	X	X	X			X		X	
		AFGG			X			X	X	X	X			X		X	
		FFGE						X	X	X	X	X		X		X	
		FFGG			X			X	X	X	X	X		X		X	
Heat Pump Model	015CR	ACPOB	X												X	X	
		ACPIB	X		X										X	X	
	018CR	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	020CR	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	025CR	ACPOD	X												X	X	
		ACPID	X		X										X	X	
	028CR	ACPOA	X												X	X	
		ACPIA	X		X										X	X	
	030CR	AFFB	X	X				X	X		X		X	X		X	
		AFFC	X	X		X		X	X		X		X	X		X	
		AFFD	X	X	X			X	X		X		X	X		X	
		FFFB	X	X				X	X		X	X	X	X		X	
		FFFD	X	X	X			X	X		X	X	X	X		X	

OUTDOOR UNIT
M5LC-C SERIES PRODUCT LINE UP

M5LC		Nomenclature	Classification														
			Refrigerant Ctrl + Fin			Special		Safety Devices					Grille	Compressor		Marking	
			Cap. Tube	TXV	Gold Fin	High Ambient Kit	Low Ambient Kit	Contactor	High Pressure Switch	Low Pressure Switch	Nantong Press. SW	Phase Sequencer	Drain Elbow	Copeland Scroll Comp.	Rotary	CE Marking	ETL
Cooling Model	015C	ACPOC	X												X	X	
	020C	ACPIA	X		X										X	X	
		ACPOA	X												X	X	
		FCPOC	X					X							X	X	
		FCPIC	X		X			X							X	X	
	025C	ACPIA	X		X										X	X	
		ACPOA	X												X	X	
		FCPOC	X					X							X	X	
		PCPIC	X		X			X							X	X	
	028C	ACPOA	X												X	X	
		ACPIA	X		X										X	X	
		FCPOA	X					X							X	X	
		FCPIA	X		X			X							X	X	
	035C	ACCOA	X	X				X	X	X				X		X	
		ACCIA	X	X	X			X	X	X				X		X	
		FCCOA	X	X				X	X	X	X	X		X		X	
Heat Pump Model	015CR	ACPOC	X												X	X	
	020CR	ACPIA	X		X										X	X	
		ACPOC	X												X	X	
		FCPOC	X					X					X		X	X	
		FCPIC	X		X			X					X		X	X	
	025CR	ACPIA	X		X										X	X	
		ACPOC	X												X	X	
		FCPOC	X					X					X		X	X	
		FCPIC	X		X			X					X		X	X	
	028CR	ACPOA	X												X	X	
		ACPIA	X		X										X	X	
		FCPOA	X					X					X		X	X	
		FCPIA	X		X			X					X		X	X	
	035CR	ACCOA	X	X				X	X	X				X		X	
		ACCGA	X	X	X			X	X	X				X		X	
		FCCOA	X	X				X	X	X	X	X	X	X		X	
		FCCGA	X	X	X			X	X	X		X	X	X		X	

Features

CEILING AND FLOOR INSTALLATION OPTION

The unit is uniquely designed with the option to install either below the ceiling or mounted at low wall position without any modification needed. Furthermore, the unit is design adds a touch of elegance to suit any interior design requirement

EXCELLENT AIR DISTRIBUTION

The louver with automatic air swing function fully optimize the room comfort by enables the air flow to be evenly distributed into the room from the front discharge area.

NEGATIVE ION GENERATOR

McQuay emphasis on provide indoor air quality solution. Therefore, the negative ionizer technology is being brought in as an essential part of the unit. The negative ion generator increases the amount of negative ion in the air-conditioning area, creating a refreshing and healthy living environment.

EASY INSTALLATION

The ceiling convertible fan coil unit is easily installed with a very economical and space saving installation. No need renovation on wall or ceiling for installation. This easy to install and ready to operate unit ensure rapid and low installation cost.

MAGNIFICENT SERVICEABILITY

The blower, fan motor assembly and electrical parts can be inspected and air filter can be accessed by pulling down the air intake grille. During servicing or repairing, only the bottom panel needs to be removed in order to access the fan motor, blower, control box piping connection and drain pan.

WIRELESS REMOTE CONTROLLER

The standard unit comes with a simple, user friendly and stylish wireless controller. The G11 controller offers many features:

- The compact LCD transmitter is able to operate the indoor unit within 9 meters of distance.
- Fan speed can be set at low/medium/high or automatic.
- Sleep mode auto control will gradually increase or decrease the set temperature to provide a comfortable surrounding for sleeping.
- The real time timer allows the unit to be switched ON and OFF automatically based on user settings.
- Ionizer or non-thermal plasma is available to create better air quality.
- Turbo mode function is available to enables the required set temperature to be achieved in a short time.
- Personalized Setting allows user to preset and store 2 groups of personal settings (including timer setting) in the handset.

AUTO RANDOM RESTART

Auto random restart function allows the unit to automatic restart as the last setting condition when the power supply is resumed after power failure. However, the compressor will restart randomly if more than one unit is installed and sharing the same phase of power.

SELF DIAGNOSIS

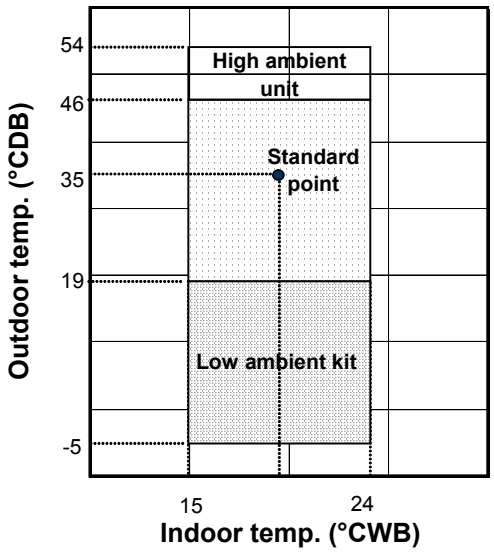
The microprocessor provides the possibility to detect and diagnose any fault or malfunction that occurs in the system. The error will be reflected by the blinking of the LED lights.

Application Information

OPERATING RANGE

Ensure the operating temperature is in allowable range.

Cooling only

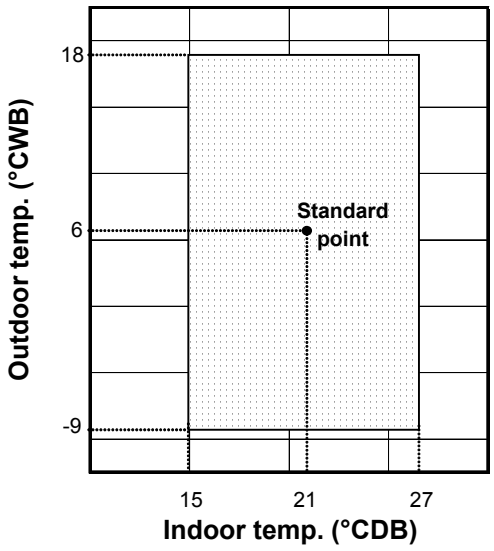


Caution :

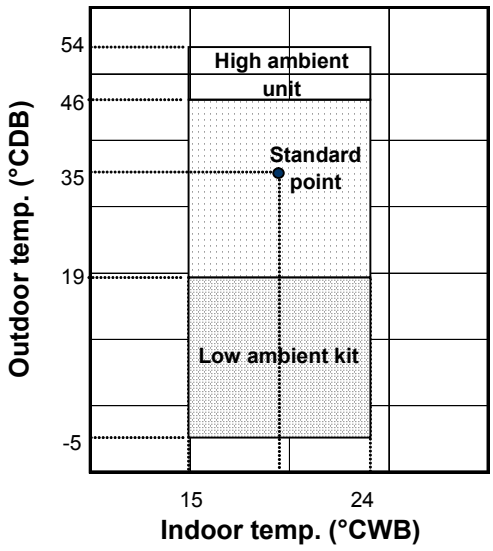
The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Heatpump

Heating



Cooling



Note :

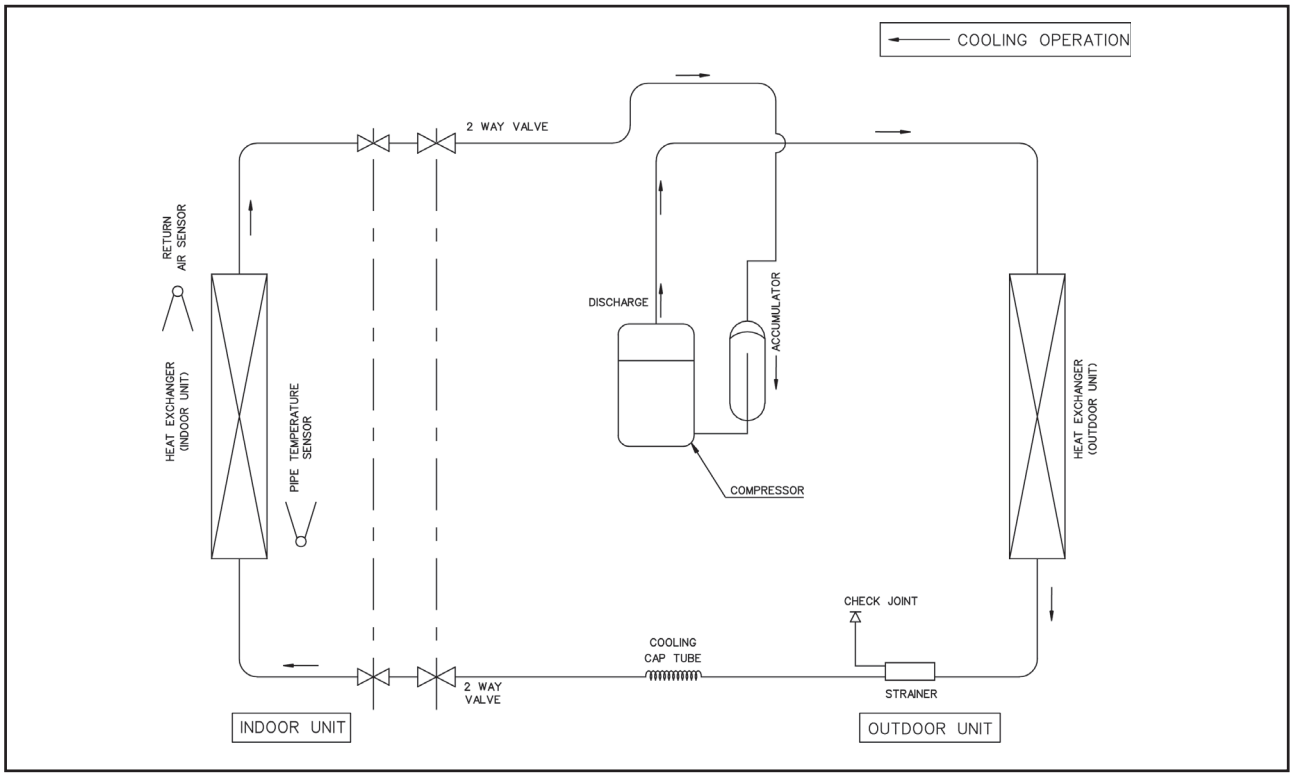
Standard operating range.

With High ambient unit. (Optional item)
Please refer to local dealer for unit of this specification.

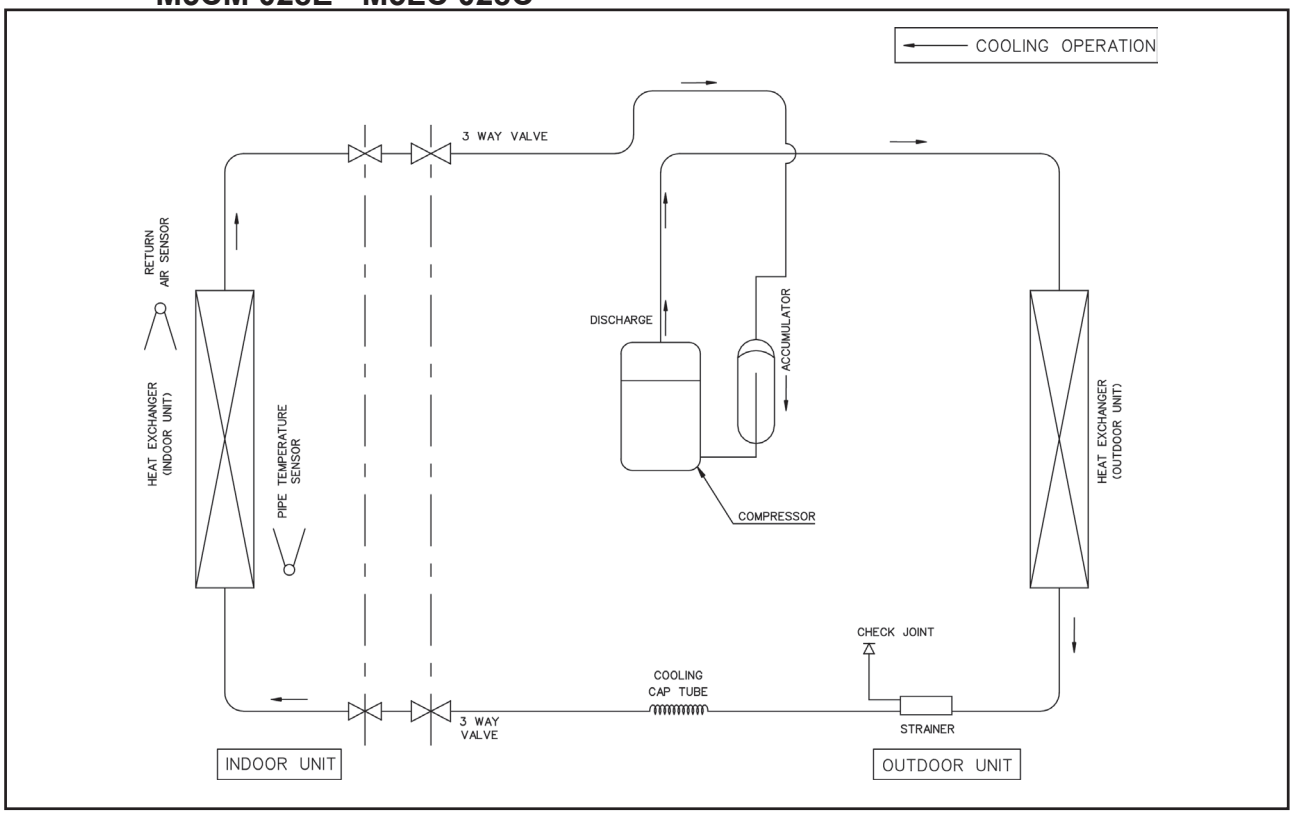
With Low ambient kit. (Optional item)
Please refer to local dealer for unit of this specification.

REFRIGERANT CIRCUIT DIAGRAMS

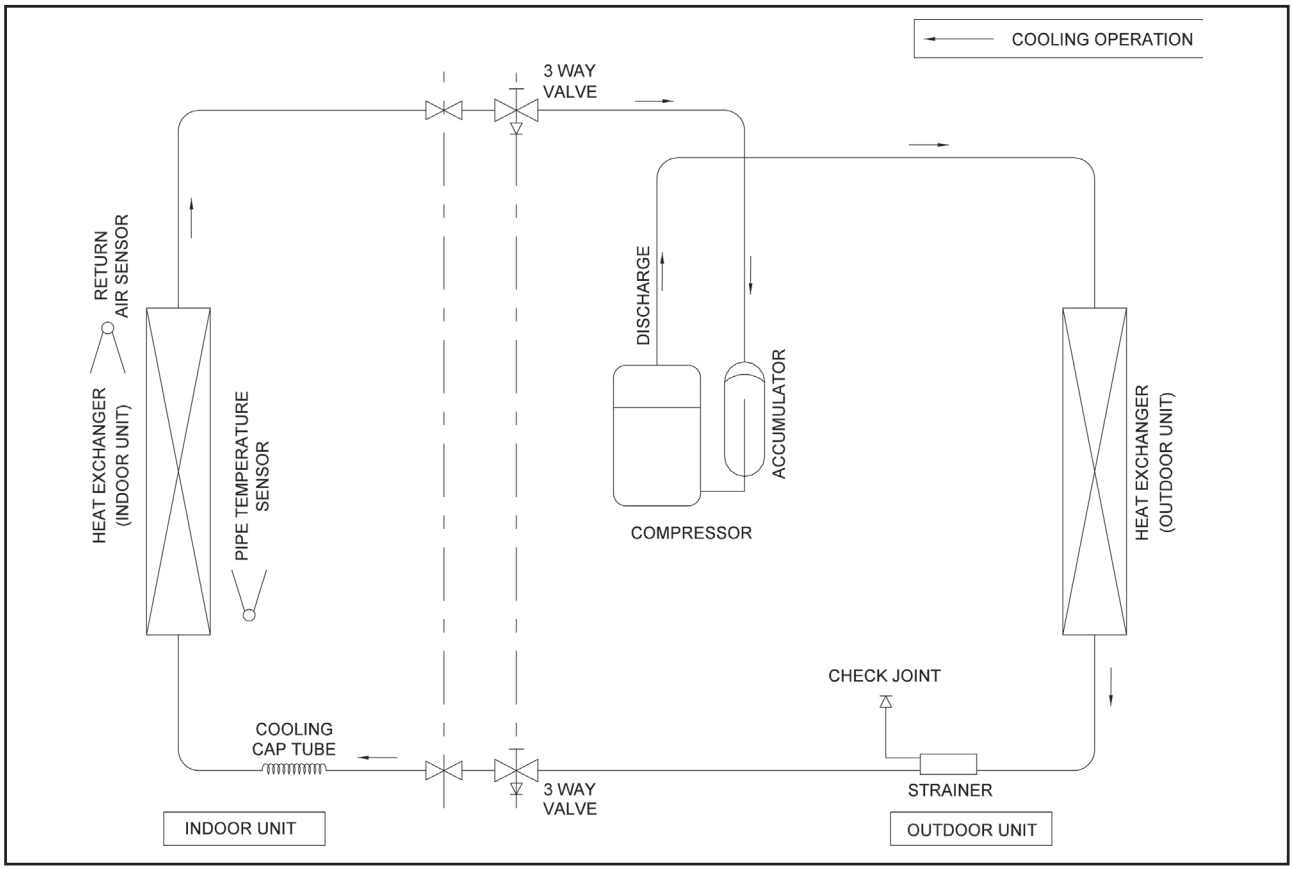
MODEL : MCM / M5CM 015E - MLC / M5LC 015C MCM 020E - MLC 018C
MCM / M5CM 020E - MLC / M5LC 020C M5CM 025E - M5LC 025C



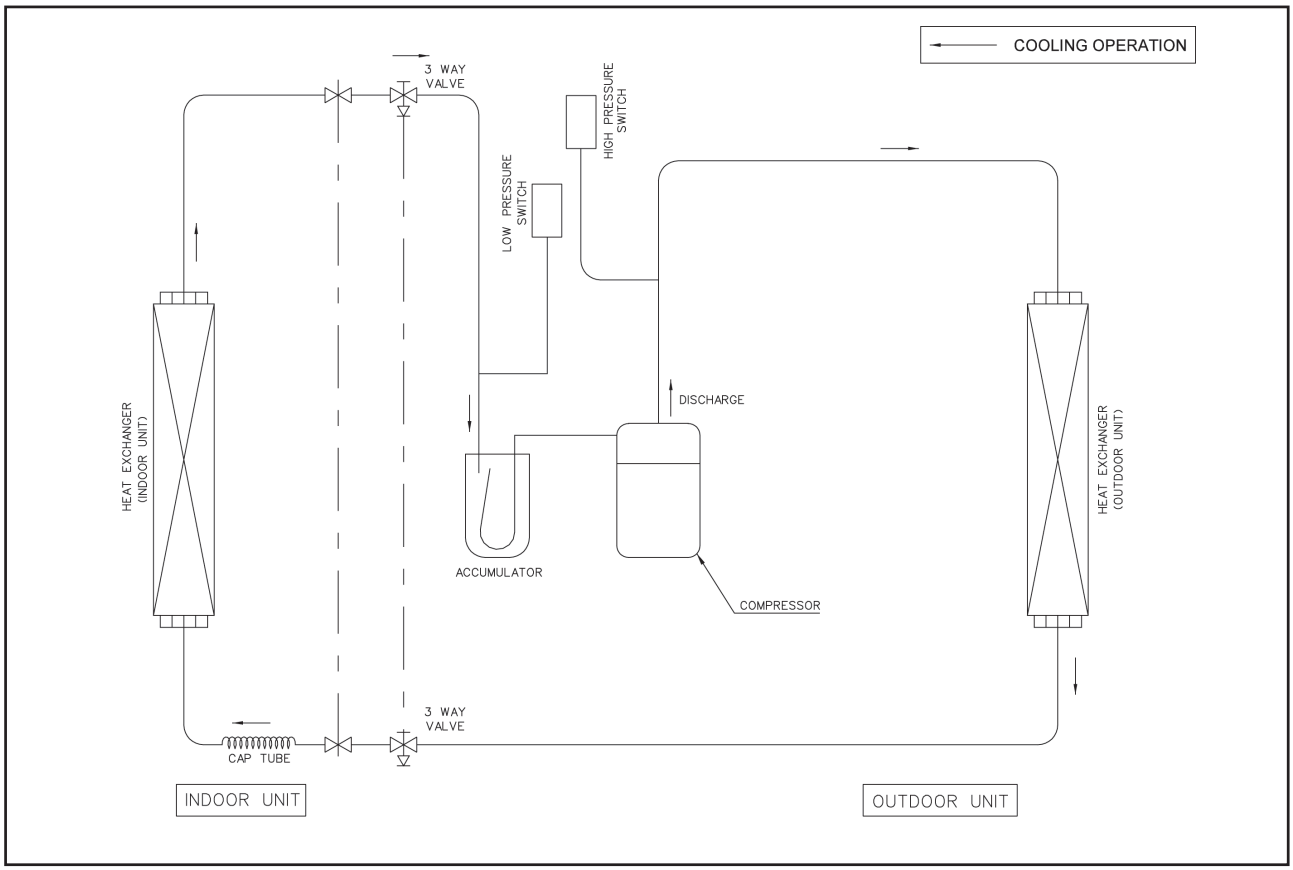
MODEL : MCM 025E - MLC 025C
M5CM 028E - M5LC 028C



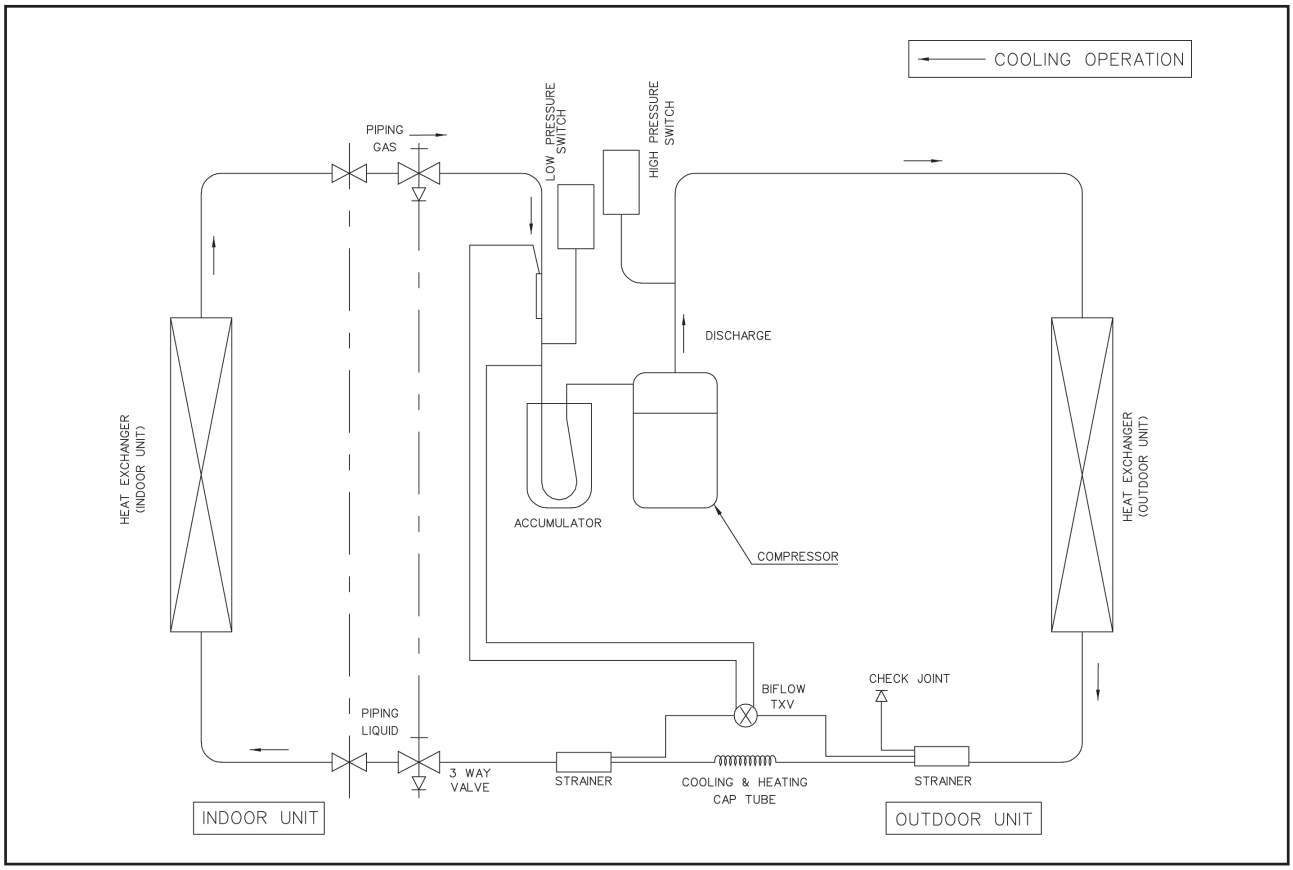
MODEL : MCM 028E - MLC 028C



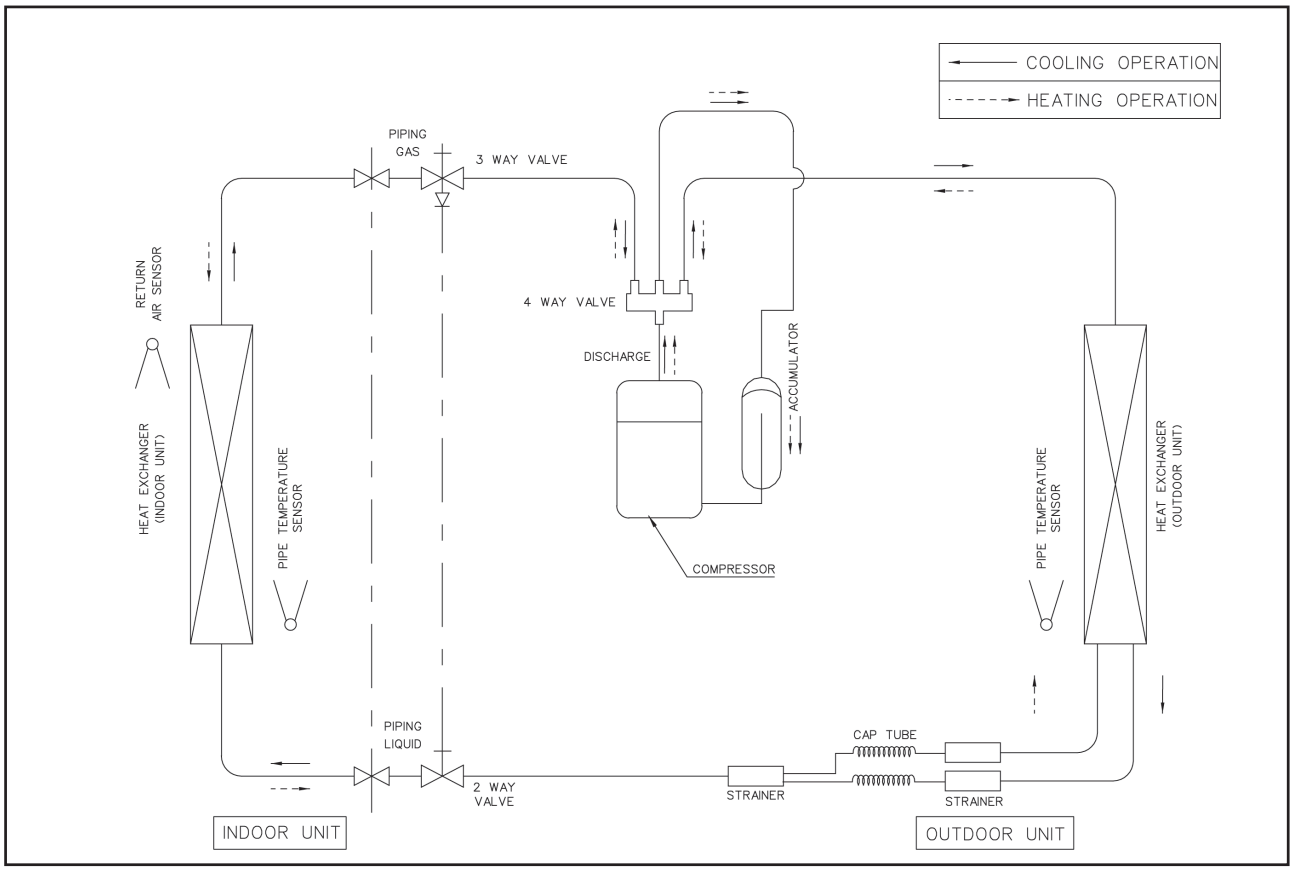
MODEL : MCM 028E - MLC 030C



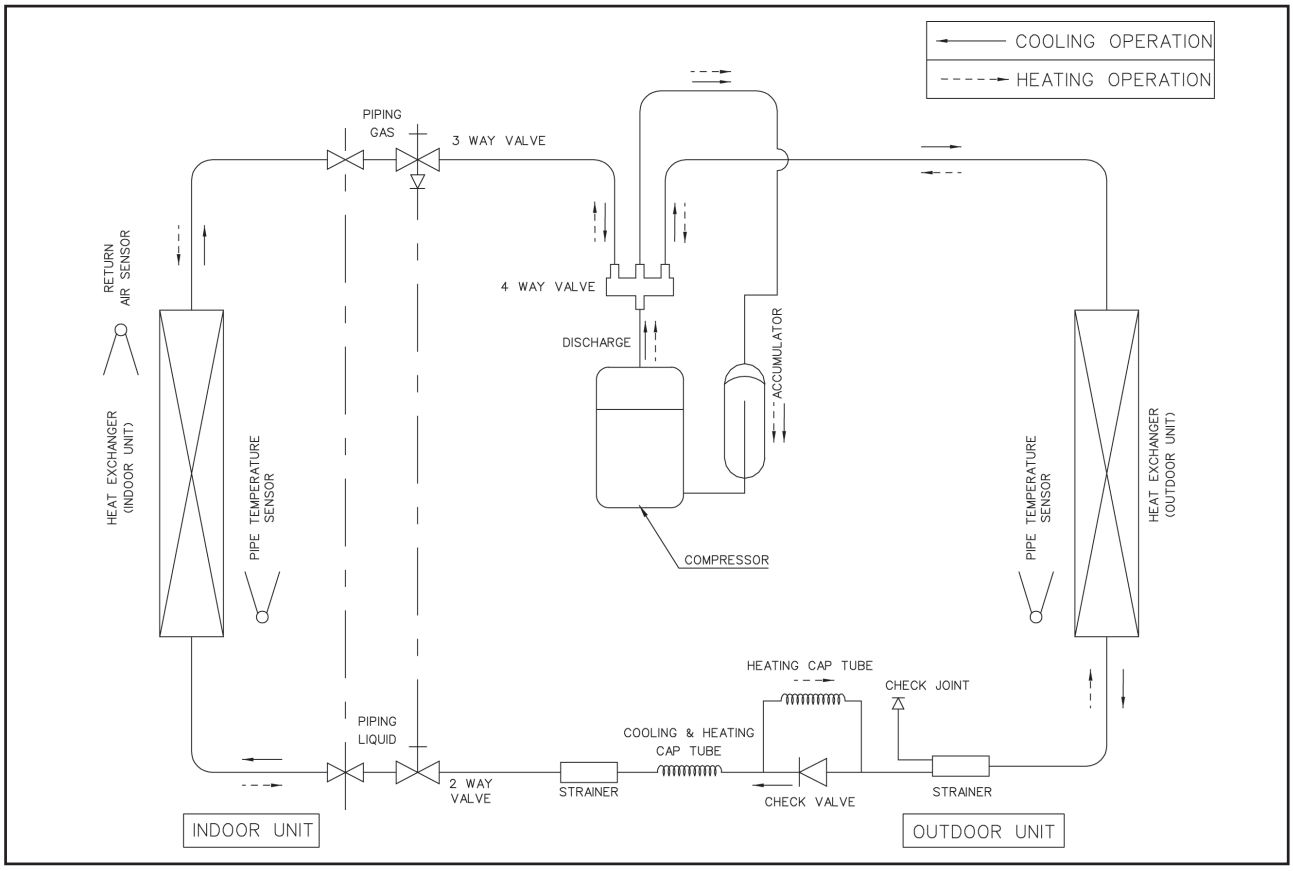
MODEL : M5CM 028E - M5LC 035C



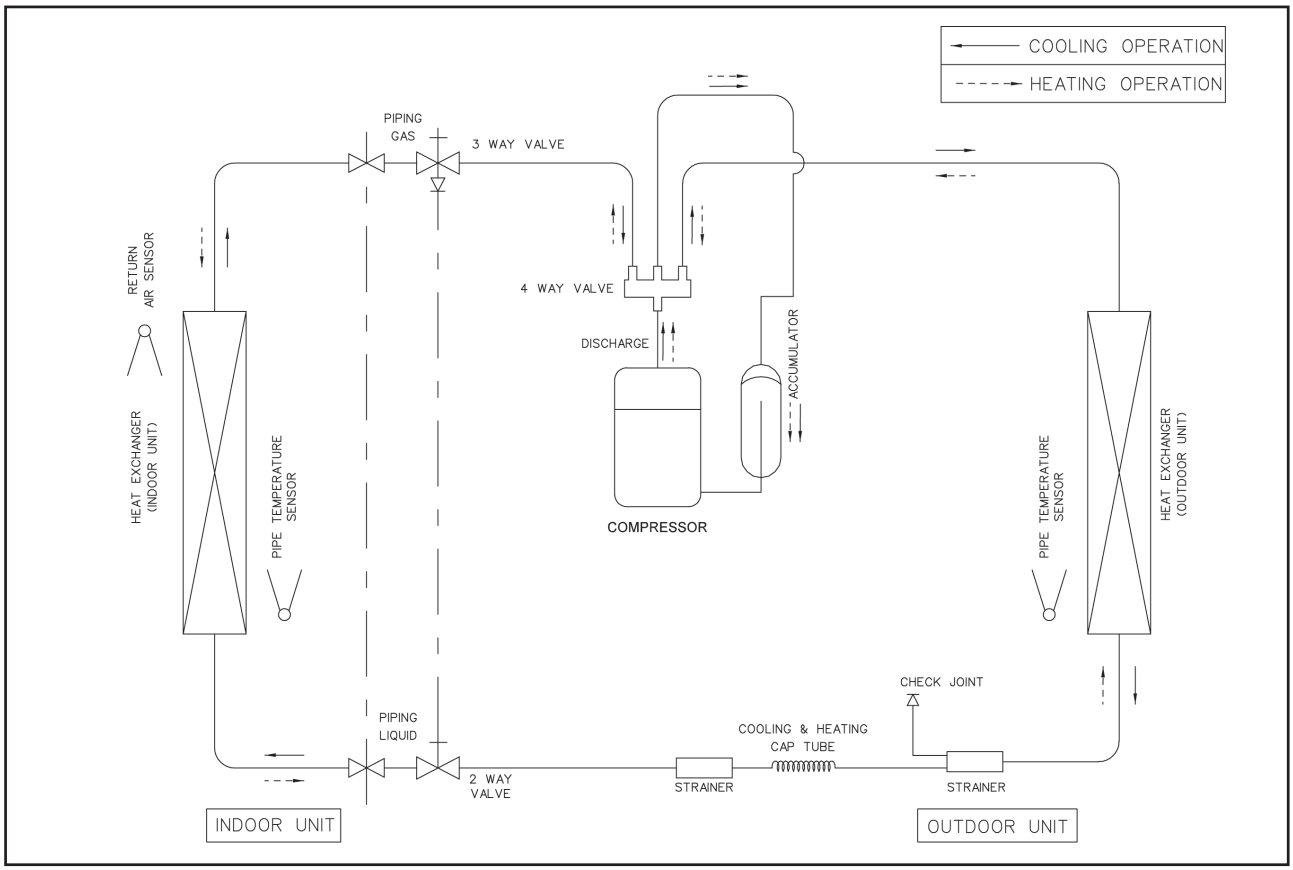
MODEL : MCM / M5CM 015ER - MLC / M5LC 015CR



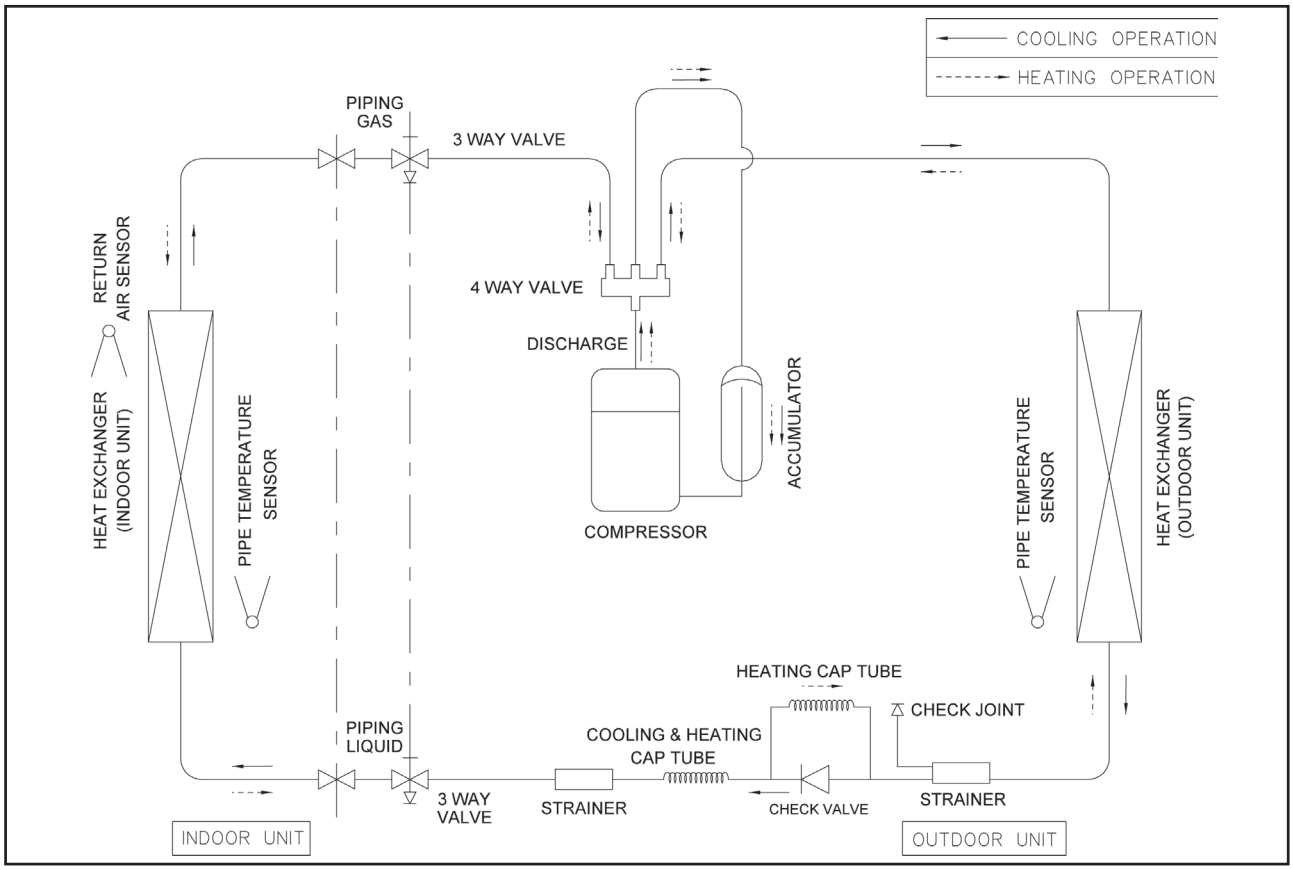
MODEL : MCM / M5CM 020ER - MLC / M5LC 020CR
M5CM 025ER - M5LC 025CR



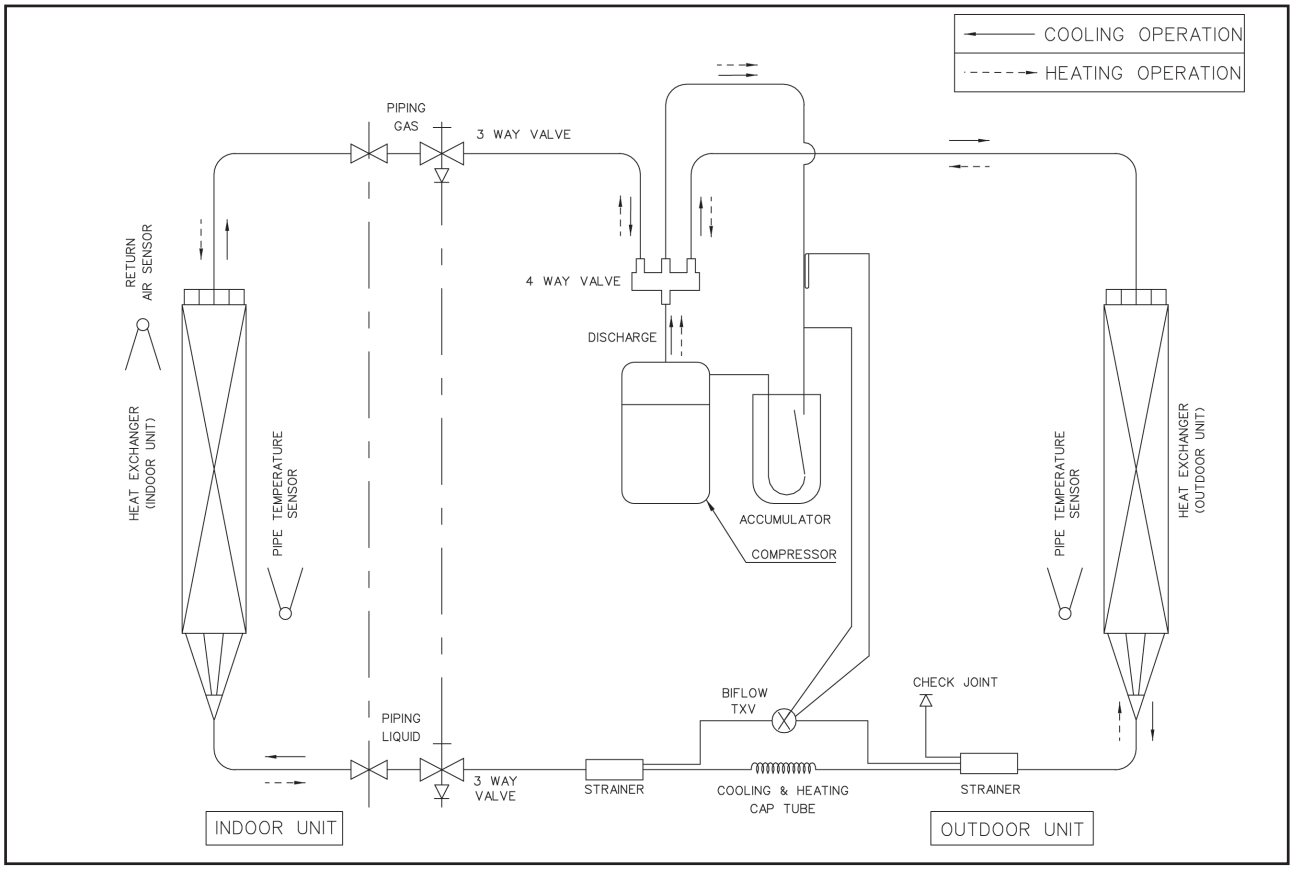
MODEL : MCM 025ER - MLC 025CR MCM 028ER - MLC 028CR



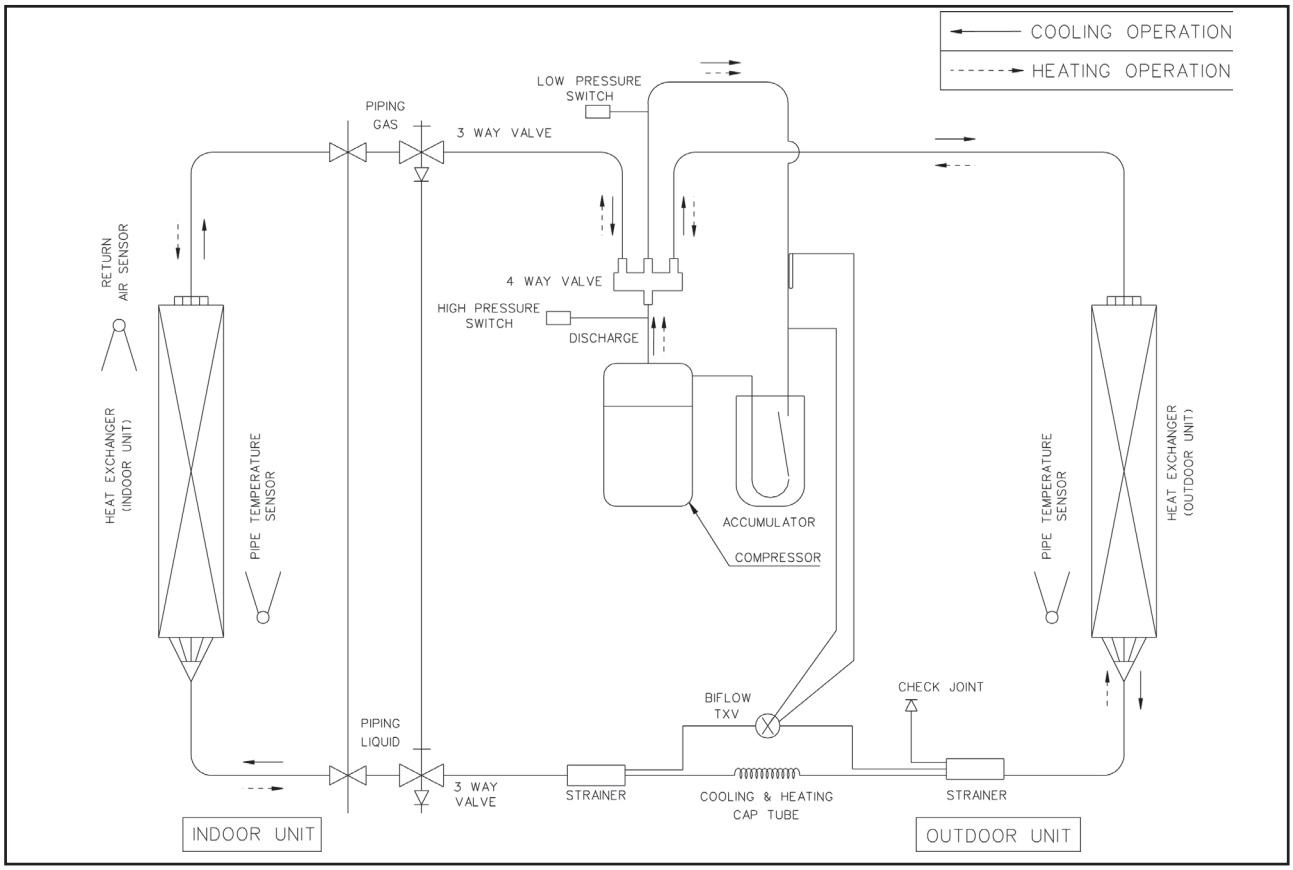
MODEL : M5CM 028ER - M5LC 028CR



MODEL : MCM 028ER - MLC 030CR



MODEL : M5CM 028ER - M5LC 035CR



CONTROLLERS

G11 REMOTE CONTROLLER

Temperature Setting

- To set the desired room temperature, press the button to increase or decrease the set temperature.
- The temperature setting range is from 16°C to 30°C
- Press both buttons simultaneously to toggle the temperature setting between °C and °F

Turbo Mode

- Press the TURBO button to achieve the required set temperature in a short time.

Sleep Mode

- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- When it is activated in COOL mode, the set temperature will be increased 0.5°C after 30mins, 1°C after 1 hour and 2°C after 2 hours.
- When it is activated in HEAT mode, the set temperature will be decreased 1°C after 30mins, 2°C after 1 hour and 3°C after 2 hours.

ON Timer Setting

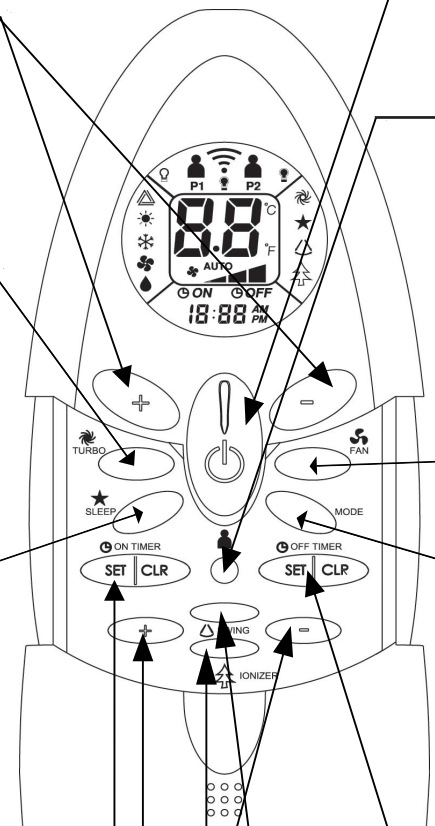
- Press the SET button will activate the on timer function.
- Set the desired on time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Clock Time Setting

- Press button + or - to increase or decrease the clock time.

Ionizer

- Press the button to activate the negative Ion function, which will refresh the indoor air effectively.



On/Off Button

- Press Once to start the air conditioner
- Press again to stop the unit

Personalised Setting

- Press and hold the button for 3s to initiate personalized setting.
- Set the individual setting e.g. MODE, SET TEMP or FAN SPEED and leave for 4s to save
- 2 groups of settings are allowed to stored in the handset

Fan Speed Selection

- Press the button until the desired fan speed is achieved.

Operating Mode

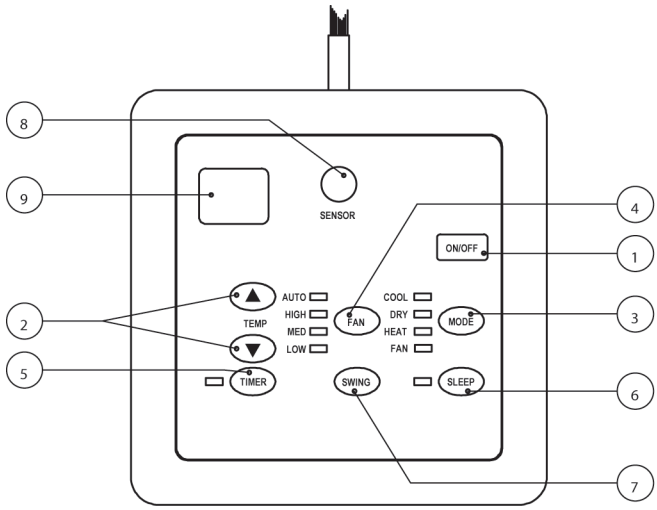
- Press the MODE button to select the type of operating mode.
- For Cooling only unit, the available modes are: COOL, DRY & FAN.
- For Heatpump unit, the available modes are: AUTO, COOL, DRY, FAN & HEAT.

OFF Timer Setting

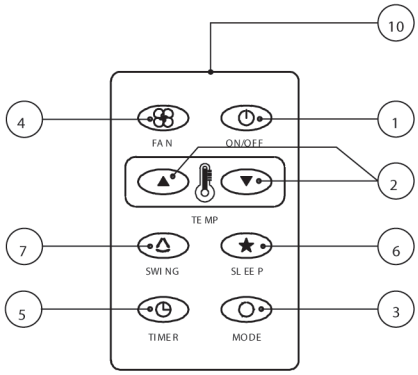
- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Automatic Air Awing

- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the louver move to the desired direction and press the button once again.



SLM



AC-5300 (OPTIONAL)

1. "ON/OFF" switch
- Press to start the air conditioner unit.
- Press again to stop the unit.

2. Temperature setting
- Set the desired room temperature.
- Press button to increase or decrease the set temperature. Setting range are between 16°C to 30°C (60°F to 80°F).

3. Operation Modes
- Press the "mode" button for select the type of operating mode.

  - Cooling Only :
    COOL, DRY, FAN
  - Heat Pump :
    AUTO, COOL, DRY, HEAT, FAN
    (AUTO mode is represented by bothCOOL and HEAT LED light on)

4. Fan Speed selection
- Press the button until the desired fan speed is achieved.

5. Timer
- Press the set button to select the switch timer of the air conditioner unit (the setting range is between 1 to 10 hours).

6. "Sleep" mode
- Press button to activate the sleep function can only be activated under "cool" or heating mode operation. When it is activated under "cool" mode operation, the set temperature will increase 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours. If it is actiaved under "HEAT" mode operation, the set temperature will be descreased 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours.

7. Air Swing
- Press button to activate the automatic air swing function.

8. Sensor
- Infra red sensor to receive signals from wireless controller.

9. LED Display
- To display the set temperature (in °C) and timer delay setting (in hours).

10. Transmission source
- To transmit signals to the air conditioner.

Operating State and Fault Table

Wireless Remote Control – Handset
LED Indicator Light Display

Cooling Only

Heatpump

COOL	DRY	FAN	HEAT	**Normal Operation / Fault Indication**
○				Cool mode
			○	Heat mode
	○			Dry mode
		○		Fan mode
○			◑	Auto mode in cooling operation
◑			○	Auto mode in heating operation
		◑		Room air sensor open or short
	◑	◑		Indoor coil sensor open or short
	◑			Outdoor coil sensor open or short
◑				Compressor overload / indoor coil sensor short / outdoor coil sensor short
◑	◑			Gas leak

○ - ON ◑ - Blinking

Wired Remote Control – SLM

Cooling / Heatpump Model

Error Code at 7 Segment Display	Operation / Faulty Indication
Blink E1	Room sensor open or short
Blink E2	Indoor coil sensor open
Blink E3	Outdoor coil sensor open
Blink E4	Compressor overload / Indoor coil sensor short / Outdoor coil sensor short
Blink E5	Gas leak
Blink E6	Water pump faulty

Phase Sequencer

	LED_P	LED_R	LED_S	LED_T
	(Red)	(Yellow)	(Yellow)	(Yellow)
Normal Operation	On	-	-	-
Reverse Phase	Blink	Blink	Blink	Blink
S & T Phase Missing	Blink	-	Blink	Blink
T Phase Missing	Blink	-	-	Blink
S Phase Missing	Blink	-	Blink	-
R Phase Missing	-	-	-	-
Overload	Blink	-	-	-
Sensor Missing	Blink	On	On	On

Notes: 1. "-" means LED off.

2. When R phase missing, no LED or buzzer will indicate the error, but relay 71 (Common) and 81 (NO) will cut off.

3. The unit will check the discharge sensor availability only during power up.

4. All errors can only recover through manually reset.

INSTALLATION

Caution

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

(1) Installation of Indoor Unit

Preliminary Site Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed ± 10% of rated voltage. Electricity supply lines must be independent of welding transformers which can cause high supply fluctuation.
- Ensure that the location is convenient for wiring, piping and drainage.

Standard Mounting

Ensure that the overhead supports are strong enough to hold the weight of the unit. Position the hanger rods (wall mounting bracket for floor standing), and check for its alignment with the unit as shown in Figure A. Also, check that the hangers are secured and the base of the fan coil unit is leveled in both horizontal directions, taking into account the gradient for drainage flow as recommended in Figure B.

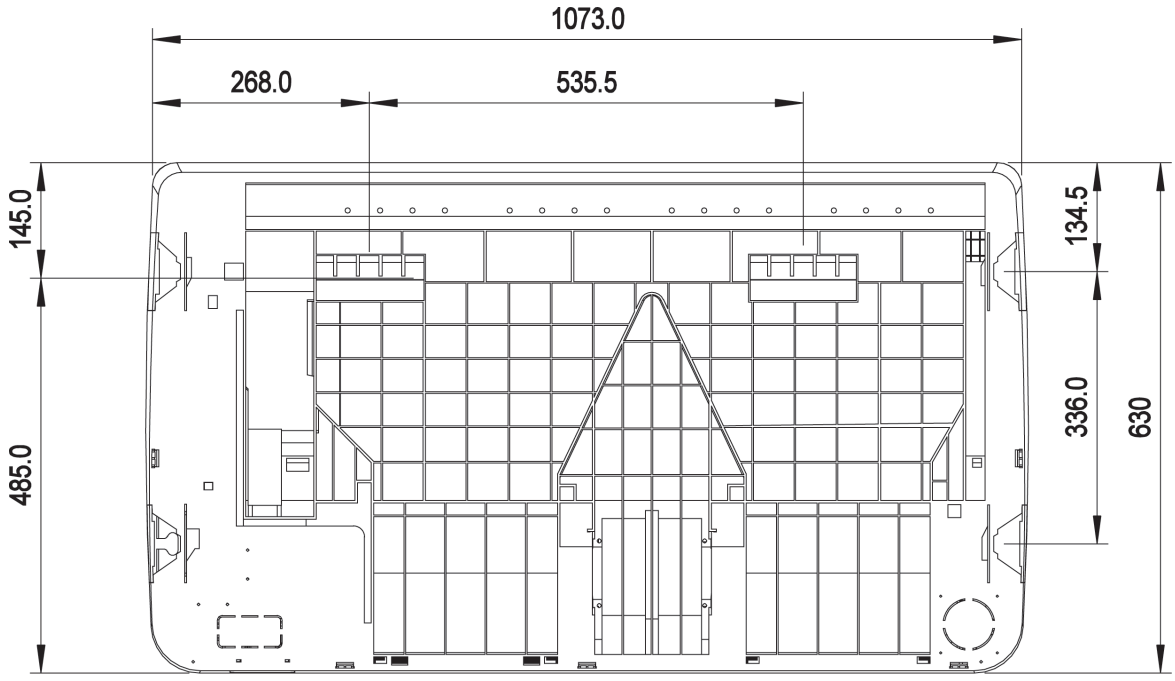
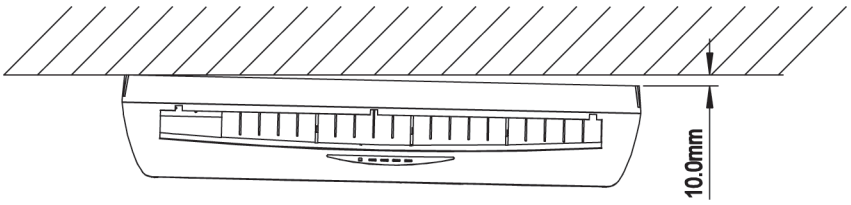


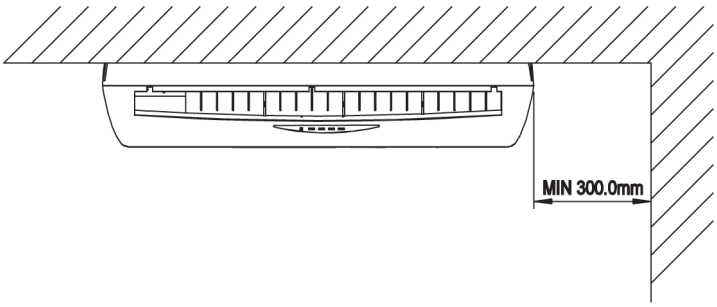
Figure A

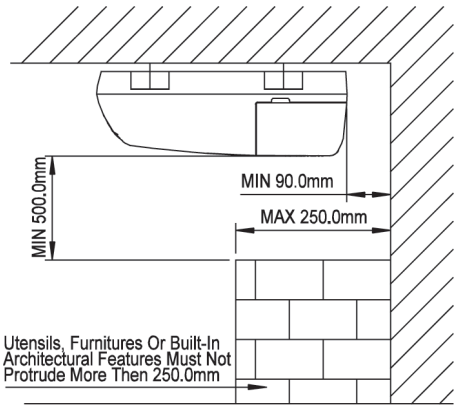
Please ensure that the following steps are taken:

- Check the gradient for drainage flow as recommended in Figure B.
- Provide clearance for easy servicing and optimal air flow as shown in Figure C.
- The indoor unit must be installed such that there is no short circuit of the cool discharge air with the warm return air.
- Don not install the indoor unit where there is direct sunlight shining on the unit. The location should be suitable for piping and drainage installation. The unit must be a large distance away from the door.

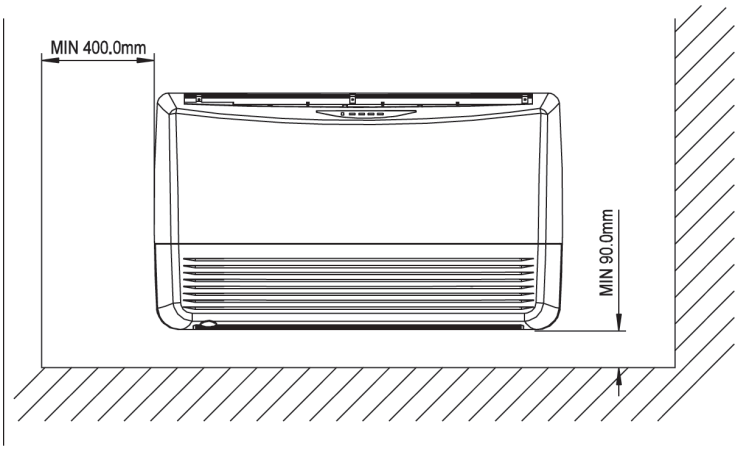


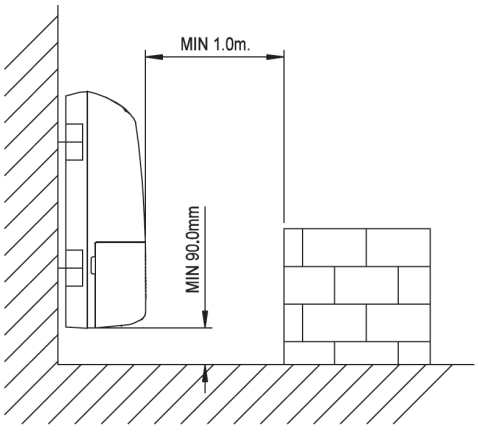
Figue B





Under ceiling type





Floor standing type

Figue C

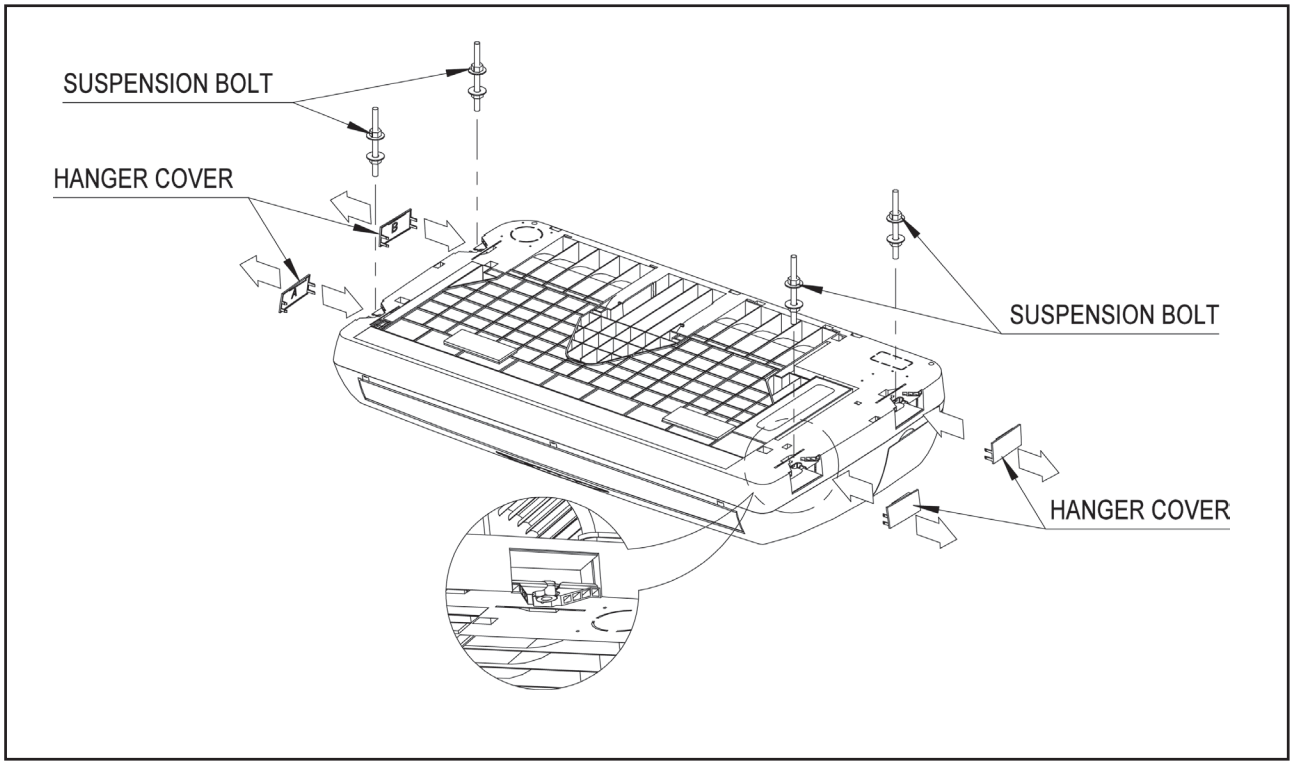
Under Ceiling Installation

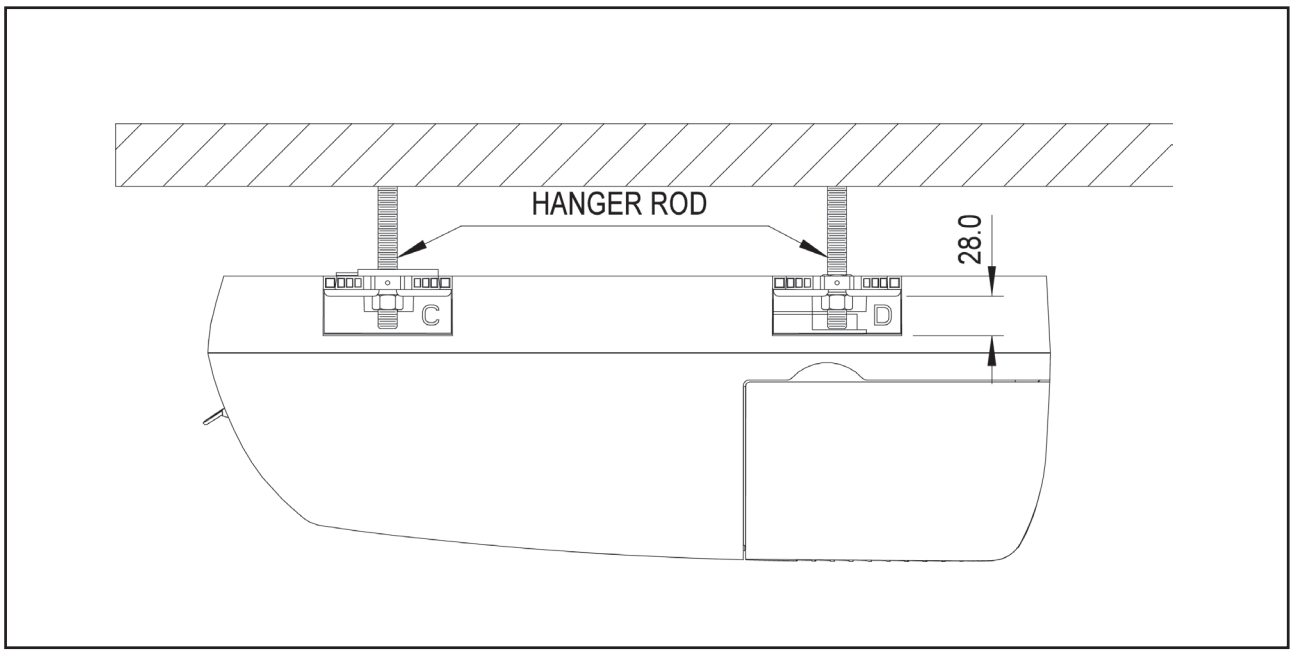
Install the Suspension Bolts

1. Install the suspension bolts so that it can support the indoor unit.
2. Adjust the distance to ceiling before installation.
3. Refer to the dimension given (Figure A) to install the unit.

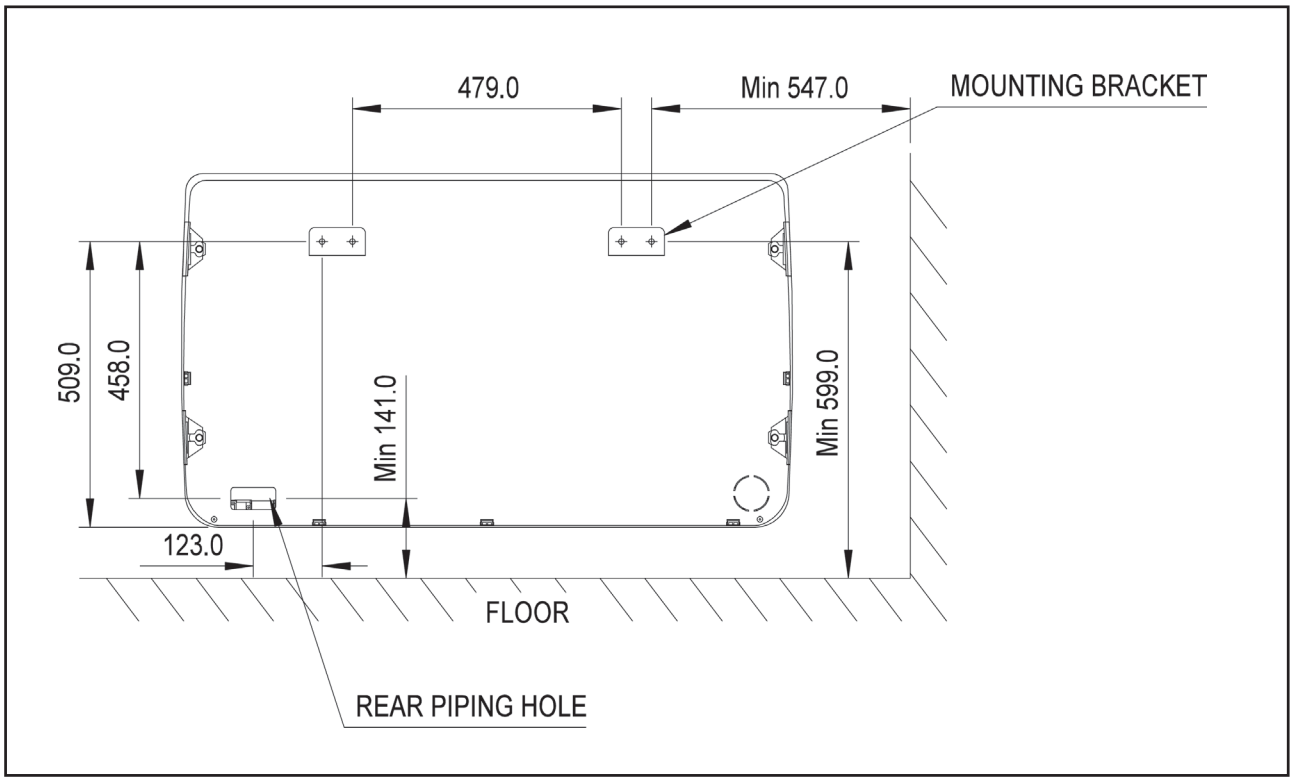
Install the Indoor Unit

1. Insert the suspension bolts into the fittings of the hanger bracket.
2. Set the nuts and washer on the both side of the metal fittings.
3. Secure it with nuts.
4. Attach the hanger cover (4 pcs) to the units.

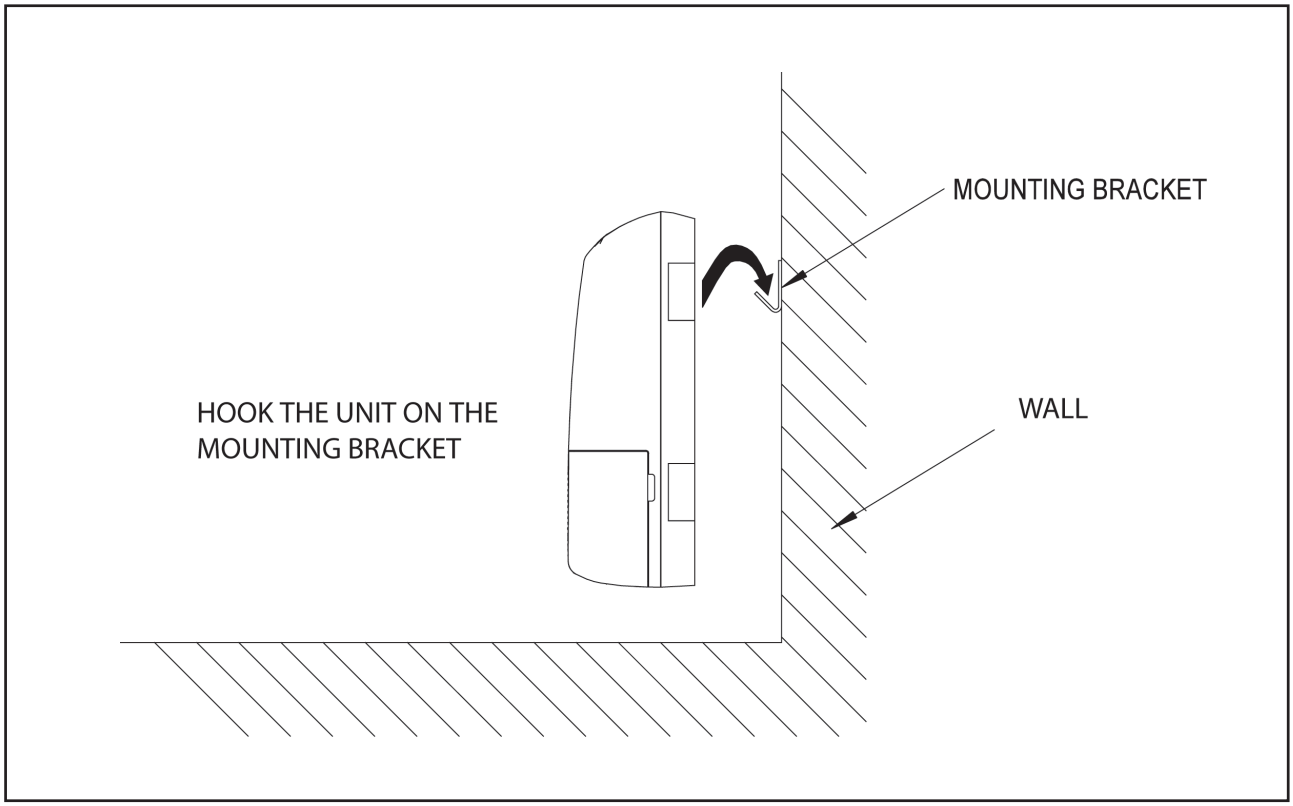




Floor standing installation



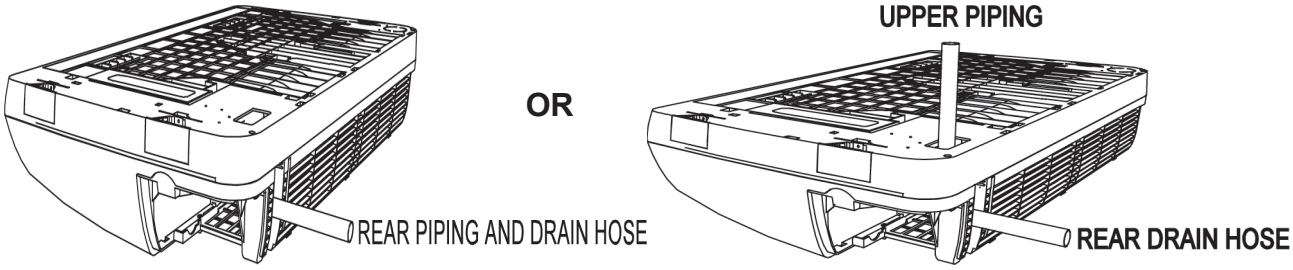
1. Refer to the dimension as illustrated when installing the mounting bracket.
2. Determine the pipe hose position using the rear piping hole. Drill the pipe hole at the slight downward slant to the outdoor side.



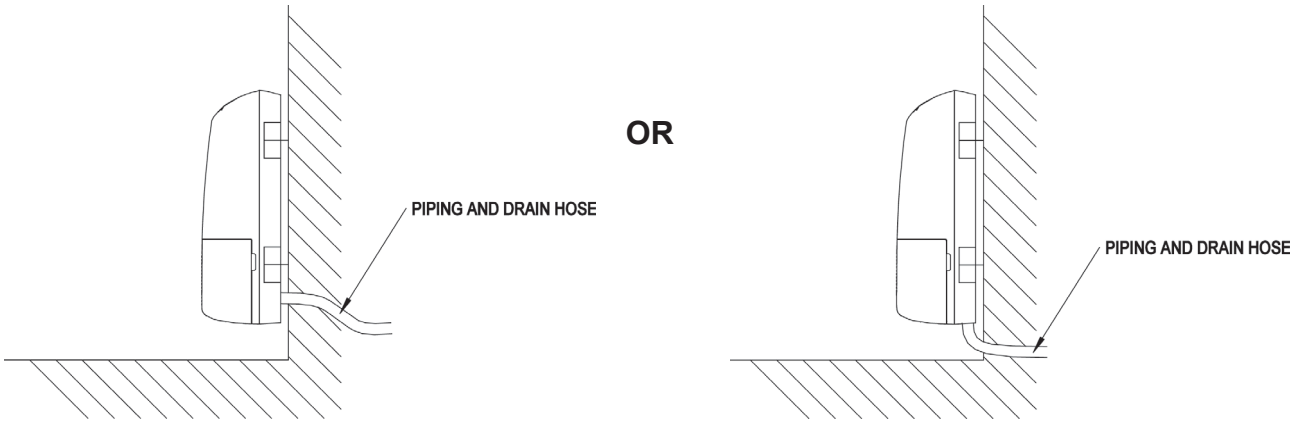
Piping and Drain Hose Installation

Under Ceiling Type

1. The piping direction can be 2 ways as illustrated.
2. The drain hose is only 1 way.

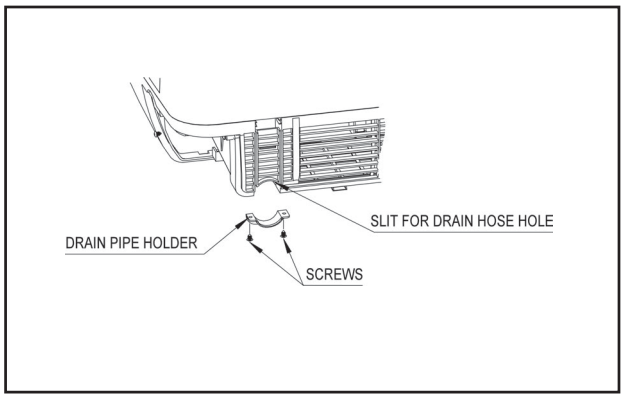


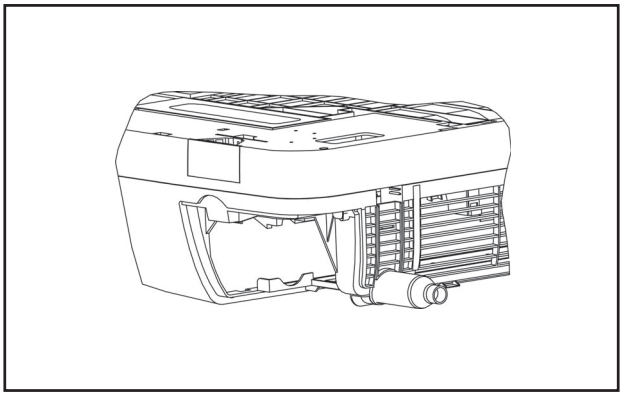
Floor standing type



How to Install the Drain Hose

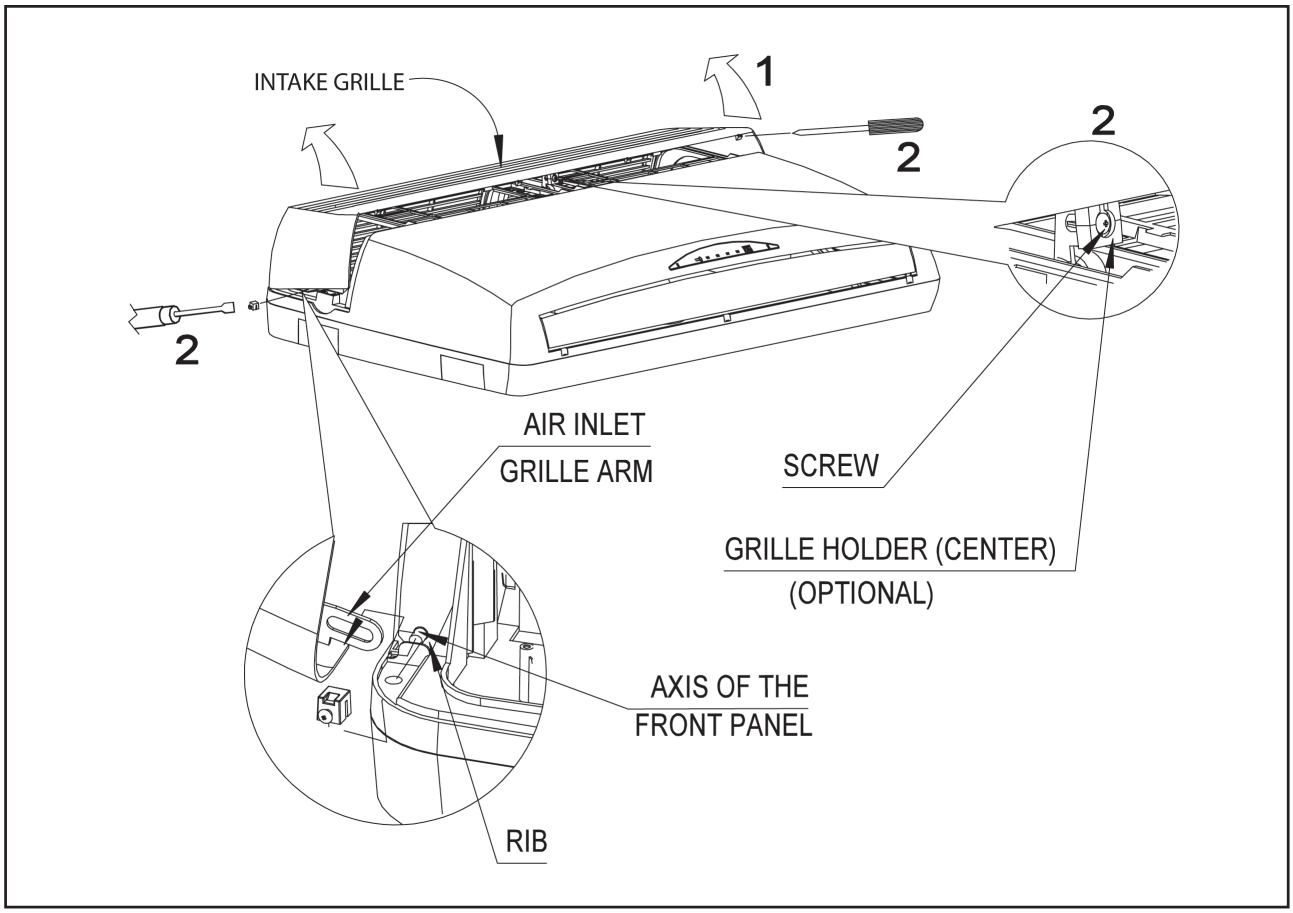
1. Remove the 2 screws and the drain pipe holder.
2. Cut a slit for the drain hose hole.
3. Place the drain hose on the v-shape area and secure it with drain pipe holder and 2 screws.

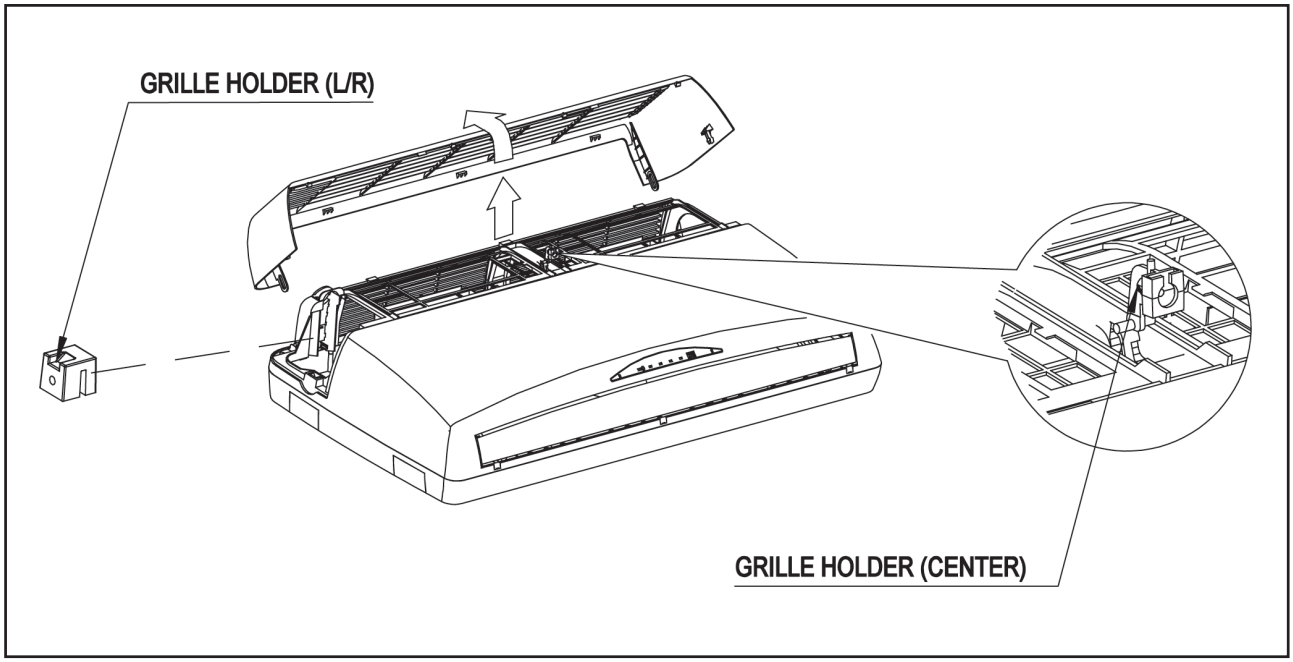




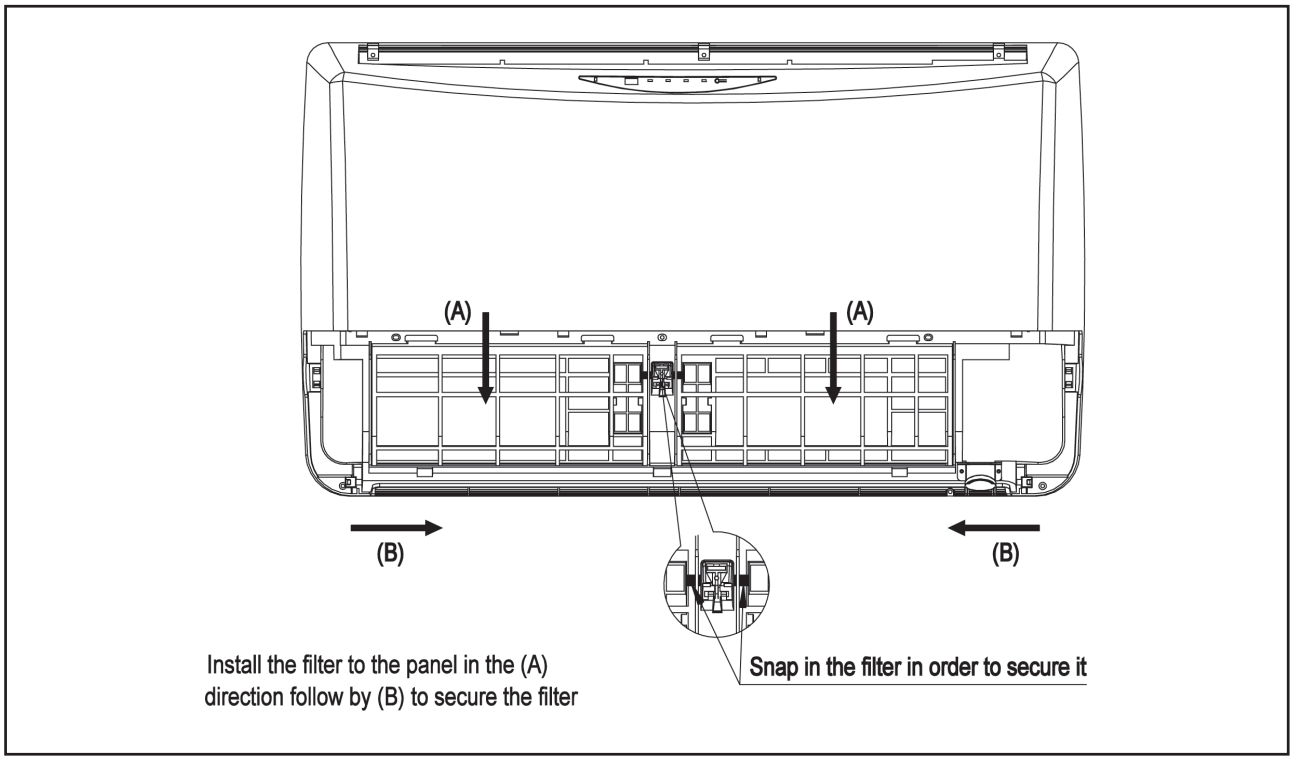
How to Remove the Air Inlet Grille

1. Remove the air inlet grille by both hands as the direction shown.
2. Loosen the screws for fixing the panel arm (3 screws - Left, Right and Center). Do not remove the screws at this time.
3. Move the air inlet grille upward, and then turn it backwards. (Do not use too much force).
4. Remove the grille holder (both left and right side). After that, remove the air intake grille.
5. Remove the grille holder (center) from the panel.



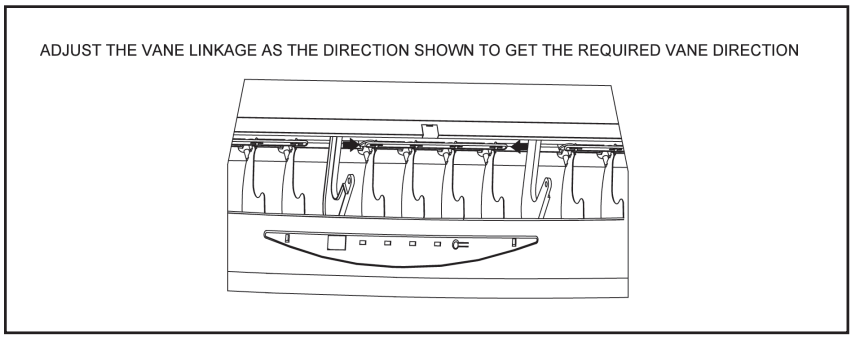


How to install the air filter

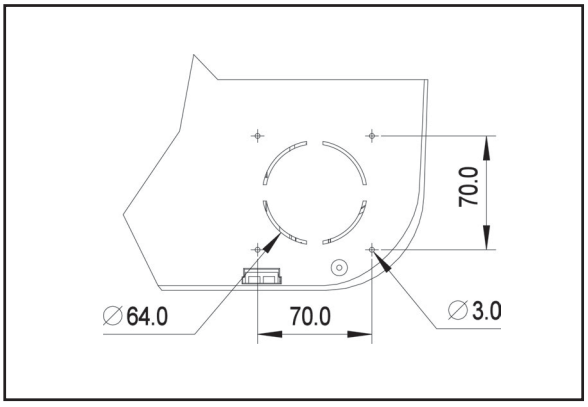

(A)
(A)
(B)
(B)
Install the filter to the panel in the (A) direction follow by (B) to secure the filter
Snap in the filter in order to secure it

To Adjust the Vane Direction

Adjust the vane linkage as the direction shown to get the required vane direction.



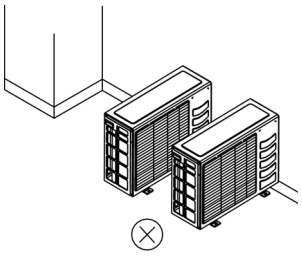
Dimension of the Fresh Air Intake Hole

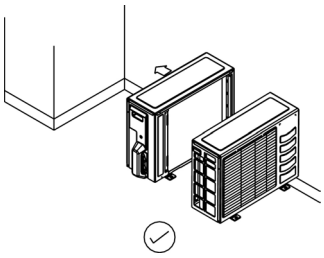


(2) INSTALLATION OF OUTDOOR UNIT

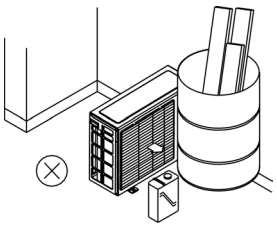
As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected for outdoor unit should fulfill the following requirements :

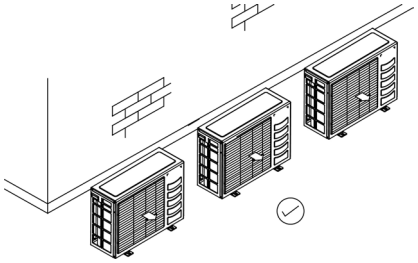
- Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



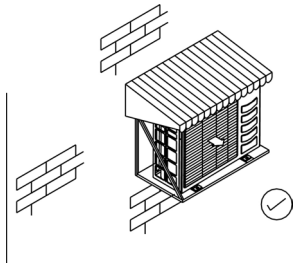


- Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacles which block air intake or discharge.





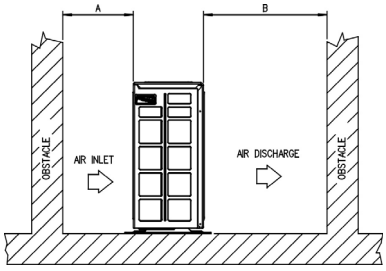
- The location must be well ventilated, so that the unit can draw in and distribute plenty of air thus lowering the condensing temperature.
- A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
- A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.

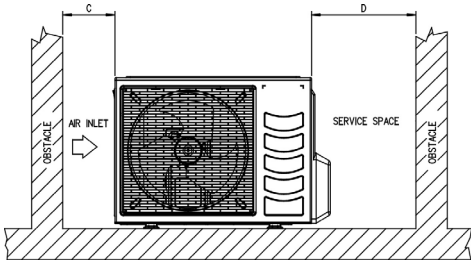


- The location must not be susceptible to dust or oil mist.

INSTALLATION CLEARANCE

- Outdoor units must be installed such that there is no short circuit of the hot discharge air or obstruction to smooth air flow. Select the coolest possible place where intake air should not be hotter than the outside temperature (max. 45°C)





ALL MODELS	A	B	C	D
Minimum Distance	300 mm	1000 mm	300 mm	500 mm

CAUTION : If the condensing unit is operated in an atmosphere containing oils(including machine oils), salt(coastal area), sulphide gas(near hot spring, oil refinery plant), such substances may lead to failure of the unit.

(3) REFRIGERANT PIPING

MAXIMUM PIPING LENGTH AND MAXIMUM NUMBER OF BENDS

When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:

Model	Indoor	015E/ER	020E/ER	025E/ER	028E/ER	
	Outdoor	015C/CR	018 / 020C/CR	025C/CR	028C/CR	030 / 035C/CR
Maximum Length, m		12	15	15	15	45
Maximum Elevation, m		5	8	8	8	25
Maximum No. of Bends		10	10	10	10	10

Piping Sizes (Flare Connection Type)

Piping sizes are as follows:

R22

Model	MLC 015C/CR	MLC 018/020C/CR	MLC 025C/CR	MLC 028C/CR	MLC 030C/CR
Liquid (mm/in)	6.35 / $^1/_4$	6.35 / $^1/_4$	9.52 / $^3/_8$	9.52 / $^3/_8$	9.52 / $^3/_8$
Suction (mm/in)	12.70 / $^1/_2$	15.88 / $^5/_8$	15.88 / $^5/_8$	15.88 / $^5/_8$	15.88 / $^5/_8$

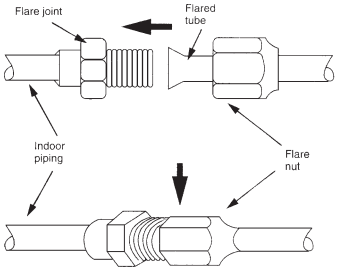
R410A

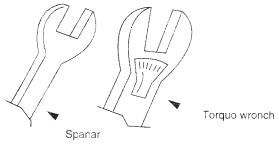
Model	M5LC 015C/CR	M5LC 020C/CR	M5LC 025C/CR	M5LC 028C/CR	M5LC 035C/CR
Liquid (mm/in)	6.35 / $^1/_4$	6.35 / $^1/_4$	6.35 / $^1/_4$	9.52 / $^3/_8$	9.52 / $^3/_8$
Suction (mm/in)	12.70 / $^1/_2$	12.70 / $^1/_2$	15.88 / $^5/_8$	15.88 / $^5/_8$	15.88 / $^5/_8$

Piping Connection to the Units

- Align the center of the piping and tighten the flare nut sufficiently with fingers.
- Finally tighten the flare nut with torque wrench unit the wrench clicks.
- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.

Pipe Size (mm/in)	Torque (Nm)
6.35 (1/4)	18
9.52 (3/8)	42
12.70 (1/2)	55
15.88 (5/8)	65
19.05 (3/4)	78





(4) WIRING

ELECTRICAL CONNECTIONS

- Wiring regulations on wire diameters differ from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installations comply with the rules and regulations.

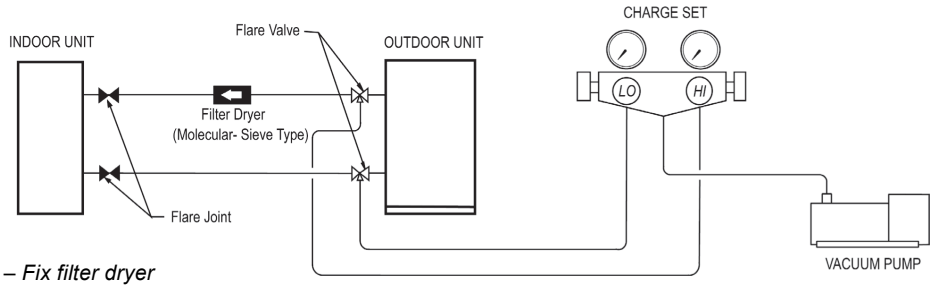
GENERAL PRECAUTIONS

- Ensure that the rated voltage of the unit corresponds to the name plate before carrying out proper wiring according to the wiring diagram.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnects and a circuit breaker for over-current protection should be provided in the exclusive line.
- The unit must be **GROUNDED** to prevent possible hazards due to insulation failures.
- All wiring must be firmly connected.
- All wiring must not touch the hot refrigerant piping, compressor or any moving parts of fan motors.

(5) VACUUMING AND CHARGING

The pre-charged outdoor unit does not need any vacuuming or charging. However once it is connected, the connecting pipe line and the indoor unit need to be vacuumed before releasing the R22/R407C/R410A from the outdoor unit.

1. Open the service port core cap.
2. Connect pressure gauge to the service port.
3. Connect the line to vacuum pump. Open the charging manifold valve and turn the pump on. Vacuum to -0.1 MPa (-760mmHg) or lower. (Evacuation time varies by the pump but averagely in 1 hour).



Note : R407C – Fix filter dryer
R22 - Nil
R410A - Nil

(6) ADDITIONAL CHARGE

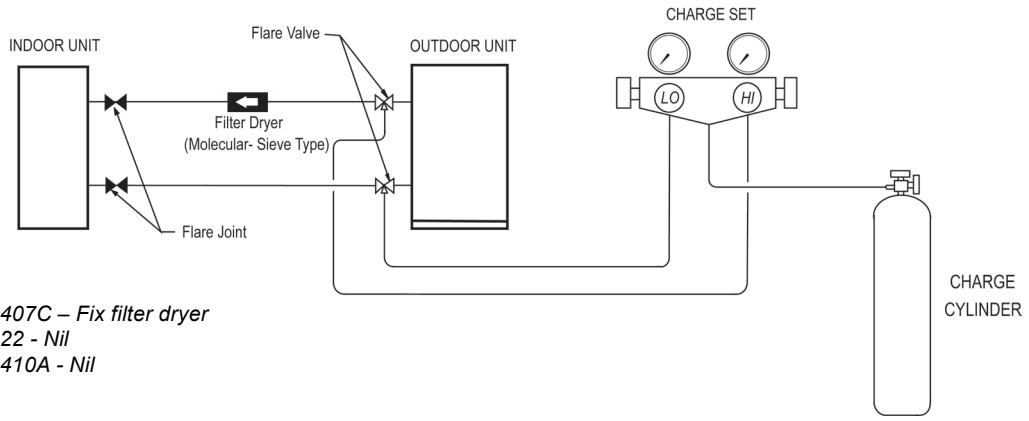
- The refrigerant charge has already charged into the outdoor unit. For the piping length of 7.6m, additional refrigerant charge after vacuuming is not necessary.
- When the piping length is more than 7.6m, please use the table below (unit in gram).

Model	10m	12m	15m	25m	35m	45m
MLC 015C/CR	37 / 57	68 / 104	-	-	-	-
MLC 018C/CR	38 / 54	70 / 98	118 / 166	-	-	-
MLC 020C/CR	38 / 53	70 / 96	118 / 162	-	-	-
MLC 025C/CR	94 / 53	172 / 98	289 / 164	-	-	-
MLC 028C/CR	94 / 133	172 / 244	291 / 411	-	-	-
MLC 030C/CR	133 / 133	244 / 243	410 / 409	964 / 961	1518 / 1514	2072 / 2067

Model	10m	15m	20m	25m	35m	45m
M5LC 015C/CR	20 / 39	37 / 71	-	-	-	-
M5LC 020C/CR	24 / 40	44 / 73	74 / 123	-	-	-
M5LC 025C/CR	24 / 23	45 / 43	75 / 72	-	-	-
M5LC 028C/CR	58 / 91	106 / 167	178 / 281	-	-	-
M5LC 035C/CR	65 / 98	118 / 180	199 / 303	469 / 712	738 / 1122	1007 / 1531

The additional refrigerant charge amount recommended is a guideline for longer piping application. The actual charge required may be different from the guideline due to different application and variation in site conditions.

Diagram shows typical charging method:



Note : R407C – Fix filter dryer
R22 - Nil
R410A - Nil

(7) OVERALL CHECKING

- Ensure the following, in particular:
  1. The unit is mounted solidly and rigid in position.
  2. Piping and connections are leak proof after charging.
  3. Proper wiring has been done.
- Drainage check – pour some water into drain pan.
- Test run
  1. Conduct a test run after water drainage test and gas leakage test.
  2. Watch out for the following:
     (a) Is the electric plug firmly inserted into the socket?
     (b) Is there any abnormal sound from the unit?
     (c) Is there any abnormal vibration with regard to the unit itself or piping?
     (d) Is there smooth drainage of water?
- Check that:
  1. Outdoor fan is running, with warm air blowing off the outdoor unit (cooling cycle).
  2. Indoor blower is running and discharge cool air (cooling cycle).
  3. Suction (low side) pressure is as per recommendations.
  4. The remote controller has incorporated a 3 minutes delay in the circuit. Thus, it requires about 3 minutes before the outdoor unit can start up.

(8) STANDARD OPERATING CONDITION

Cooling Only Unit

Temperature	T_s ˚C / ˚F	T_h ˚C / ˚F
Minimum Indoor Temperature	19.4 / 66.9	13.9 / 57.0
Maximum Indoor Temperature	26.7 / 80.1	19.4 / 66.9
Minimum Outdoor Temperature	19.4 / 66.9	13.9 / 57.0
Maximum Outdoor Temperature	46 / 114.8	24 / 75.2

Heat Pump Unit

Temperature	T_s ˚C / ˚F	T_h ˚C / ˚F
Minimum Indoor Temperature	10 / 50	-
Maximum Indoor Temperature	26.7 / 80.1	-
Minimum Outdoor Temperature	-8 / 17.6	-9 / 15.8
Maximum Outdoor Temperature	24 / 75.2	18 / 64.4

(9) SPECIAL PRECAUTIONS WHEN DEALING WITH REFRIGERANT R410A UNIT

i) WHAT IS NEW REFRIGERANT R410A?

R410A is a new HFC refrigerant which does not damage the ozone layer. The working pressure of this new refrigerant is 1.6 times higher than conventional refrigerant (R22), thus proper installation / servicing is essential.

ii) COMPONENTS

Mixture weight composition R32(50%) and R125(50%)

iii) CHARACTERISTIC

- R410A liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R410A.
- When refrigerant R410A is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R410A, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R410A is being charged into the system.
- POE oil is used as lubricant for R410A compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken not to expose the R410A system too long to moist air.

iv) CHECK LIST BEFORE INSTALLATION/SERVICING

- Tubing
  Refrigerant R410A is more easily affected by dust of moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation
- Compressor oil
  No additional charge of compressor oil is permitted.
- Refrigerant
  No other refrigerant other that R410A
- Tools (size of service port is different from R22 system)
  Tools specifically for R410A only (must not be used for R22 or other refrigerant)
  i) Manifold gauge and charging hose
  ii) Gas leak detector
  iii) Refrigerant cylinder/charging cylinder
  iv) Vacuum pump c/w adapter
  v) Flare tools
  vi) Refrigerant recovery machine

v) HANDLING AND INSTALLATION GUIDELINES

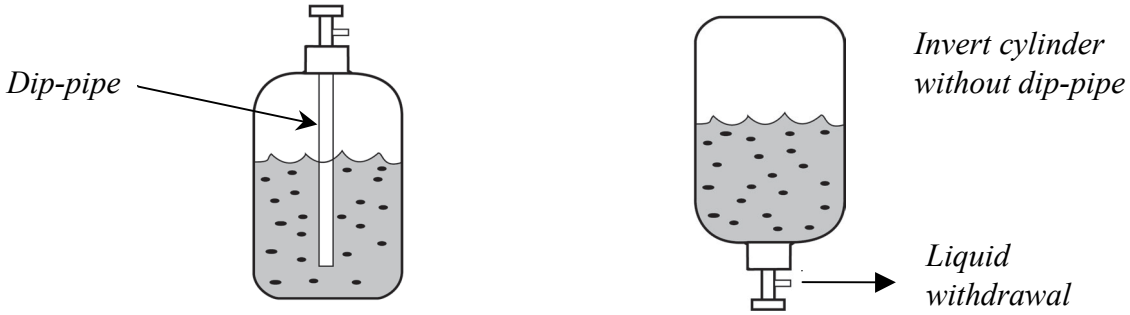
Like R22 system, the handling and installation of R410A system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to its hydroscopic POE oil, additional precautions must be taken to ensure optimum and trouble free system operation.

a) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

b) Ensure that the compressor is not expose to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Removed the seal plugs only when the compressor is about to be brazed.

c) The system should be thoroughly vacuumed to 1.0 Pa (700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.

d) When charging R410A, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R410A is being delivered into the system. The liquid composition can be different from the vapor composition.



f) Normally, the R410A cylinder or can is being equipped with a dip pipe for liquid withdrawal. However, if the dip pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.

Engineering and Physical Data

GENERAL DATA - COOLING ONLY (R22)

MODEL		INDOOR UNIT		MCM 015E
		OUTDOOR UNIT		MLC 015C
NOMINAL CAPACITY			Btu/h	12000
			W	3520
NOMINAL TOTAL INPUT POWER			W	1250
NOMINAL RUNNING CURRENT			A	5.6
POWER SOURCE			V/Ph/Hz	220 - 240 / 1 / 50
EER			W/W	2.82
REFRIGERANT TYPE				R22
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN)
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH	l/s / CFM	240 / 508
		MEDIUM	l/s / CFM	182 / 386
		LOW	l/s / CFM	165 / 350
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)		dBA	48 / 43 / 41
	UNIT DIMENSION	HEIGHT	mm/in	218 / 8.6
		WIDTH	mm/in	1080 / 42.5
		DEPTH	mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT	mm/in	297 / 11.7
		WIDTH	mm/in	1197 / 47.1
		DEPTH	mm/in	740 / 29.1
	UNIT WEIGHT		kg/lb	26
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW		l/s / CFM	453 / 960
	SOUND PRESSURE LEVEL		dBA	49
	UNIT DIMENSION	HEIGHT	mm/in	540 / 21.3
		WIDTH	mm/in	700 / 27.6
		DEPTH	mm/in	250 / 9.8
	PACKING DIMENSION	HEIGHT	mm/in	620 / 24.4
		WIDTH	mm/in	810 / 31.9
		DEPTH	mm/in	330 / 13.0
	UNIT WEIGHT		kg/lb	32 / 71
	PIPE CONNECTION	TYPE		FLARE VALVE
		SIZE LIQUID	mm/in	6.4 / 1/4
		SIZE GAS	mm/in	12.7 / 1/2
REFRIGERANT CHARGE			kg/lb	0.60 / 1.32

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.
3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R22)

MODEL		INDOOR UNIT			MCM 020E	
		OUTDOOR UNIT			MLC 018C	MLC 020C
NOMINAL CAPACITY				Btu/h	18000	19000
				W	5280	5570
NOMINAL TOTAL INPUT POWER				W	1870	1861
NOMINAL RUNNING CURRENT				A	8.4	8.0
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER				W/W	2.82	2.99
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	245 / 520	
		MEDIUM		l/s / CFM	217 / 460	
		LOW		l/s / CFM	192 / 406	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 46 / 43	
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	27 / 60	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	614 / 1300	
	SOUND PRESSURE LEVEL			dBA	51	
	UNIT DIMENSION	HEIGHT		mm/in	648 / 25.5	
		WIDTH		mm/in	855 / 33.7	
		DEPTH		mm/in	328 / 12.9	
	PACKING DIMENSION	HEIGHT		mm/in	710 / 28.0	
		WIDTH		mm/in	990 / 39.0	
		DEPTH		mm/in	415 / 16.3	
	UNIT WEIGHT			kg/lb	58 / 128	59 / 130
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.4 / 1/4	
			GAS	mm/in	15.9 / 5/8	
REFRIGERANT CHARGE				kg/lb	0.85 / 1.87	1.35 / 2.98

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R22)

MODEL		INDOOR UNIT			MCM 025E
		OUTDOOR UNIT			MLC 025C
NOMINAL CAPACITY				Btu/h	24000
				W	7030
NOMINAL TOTAL INPUT POWER				W	2573
NOMINAL RUNNING CURRENT				A	11.5
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.73
REFRIGERANT TYPE					R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	274 / 580
		MEDIUM		l/s / CFM	250 / 530
		LOW		l/s / CFM	231 / 490
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	50 / 47 / 46
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6
		WIDTH		mm/in	1080 / 42.5
		DEPTH		mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7
		WIDTH		mm/in	1197 / 47.1
		DEPTH		mm/in	740 / 29.1
	UNIT WEIGHT			kg/lb	27 / 60
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	755 / 1600
	SOUND PRESSURE LEVEL			dBA	52
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5
		WIDTH		mm/in	855 / 33.7
		DEPTH		mm/in	328 / 12.9
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9
		WIDTH		mm/in	990 / 39.0
		DEPTH		mm/in	415 / 16.3
	UNIT WEIGHT			kg/lb	62 / 137
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.50 / 3.31

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COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R22)

MODEL		INDOOR UNIT			MCM 028E	
		OUTDOOR UNIT			MLC 028C	MLC 030C
NOMINAL CAPACITY				Btu/h	28000	28000
				W	8210	8210
NOMINAL TOTAL INPUT POWER				W	2811	2747
NOMINAL RUNNING CURRENT				A	13.6	13.3
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER				W/W	2.92	2.99
REFRIGERANT TYPE					R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)					INDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	302 / 640	
		MEDIUM		l/s / CFM	264 / 560	
		LOW		l/s / CFM	217 / 460	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	56 / 51 / 44	
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	28 / 62	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	741 / 1570	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.46
		WIDTH		mm/in	855 / 33.7	1030 / 40.55
		DEPTH		mm/in	328 / 12.9	400 / 15.75
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.37
		WIDTH		mm/in	990 / 39.0	1200 / 47.24
		DEPTH		mm/in	415 / 16.3	560 / 22.05
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	2.40 / 5.3	1.40 / 3.09

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COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R22)

MODEL		INDOOR UNIT			MCM 015ER
		OUTDOOR UNIT			MLC 015CR
NOMINAL COOLING CAPACITY				Btu/h	12000
				W	3520
NOMINAL HEATING CAPACITY				Btu/h	12000
				W	3520
NOMINAL TOTAL INPUT POWER (COOLING)				W	1250
NOMINAL TOTAL INPUT POWER (HEATING)				W	998
NOMINAL RUNNING CURRENT (COOLING)				A	5.6
NOMINAL RUNNING CURRENT (HEATING)				A	4.5
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.82
COP				W/W	3.53
REFRIGERANT TYPE					R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	240 / 508
		MEDIUM		l/s / CFM	182 / 386
		LOW		l/s / CFM	165 / 350
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 43 / 41
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6
		WIDTH		mm/in	1080 / 42.5
		DEPTH		mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7
		WIDTH		mm/in	1197 / 47.1
		DEPTH		mm/in	740 / 29.1
	UNIT WEIGHT			kg/lb	26
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	453 / 960
	SOUND PRESSURE LEVEL			dBA	49
	UNIT DIMENSION	HEIGHT		mm/in	540 / 21.3
		WIDTH		mm/in	700 / 27.6
		DEPTH		mm/in	250 / 9.8
	PACKING DIMENSION	HEIGHT		mm/in	620 / 24.4
		WIDTH		mm/in	810 / 31.9
		DEPTH		mm/in	330 / 13.0
	UNIT WEIGHT			kg/lb	32 / 71
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2
REFRIGERANT CHARGE				kg/lb	1.20 / 2.65

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2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.
3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R22)

MODEL	INDOOR UNIT			MCM 020ER	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
NOMINAL COOLING CAPACITY			Btu/h	18000	19000
			W	5280	5570
NOMINAL HEATING CAPACITY			Btu/h	18500	19500
			W	5420	5720
NOMINAL TOTAL INPUT POWER (COOLING)			W	1870	1861
NOMINAL TOTAL INPUT POWER (HEATING)			W	1710	1811
NOMINAL RUNNING CURRENT (COOLING)			A	8.4	8.2
NOMINAL RUNNING CURRENT (HEATING)			A	7.7	8.0
POWER SOURCE			V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER			W/W	2.82	2.99
COP			W/W	3.17	3.16
REFRIGERANT TYPE				R22	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION		WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH	l/s / CFM	245 / 520	
		MEDIUM	l/s / CFM	217 / 460	
		LOW	l/s / CFM	192 / 406	
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	48 / 46 / 43	
	UNIT DIMENSION	HEIGHT	mm/in	218 / 8.6	
		WIDTH	mm/in	1080 / 42.5	
		DEPTH	mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT	mm/in	297 / 11.7	
		WIDTH	mm/in	1197 / 47.1	
		DEPTH	mm/in	740 / 29.1	
	UNIT WEIGHT		kg/lb	27 / 60	
	CONDENSATE DRAIN SIZE		mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW		l/s / CFM	614 / 1300	
	SOUND PRESSURE LEVEL		dBA	51	
	UNIT DIMENSION	HEIGHT	mm/in	648 / 25.5	
		WIDTH	mm/in	855 / 33.7	
		DEPTH	mm/in	328 / 12.9	
	PACKING DIMENSION	HEIGHT	mm/in	710 / 28.0	
		WIDTH	mm/in	990 / 39.0	
		DEPTH	mm/in	415 / 16.3	
	UNIT WEIGHT		kg/lb	58 / 128	59 / 130
	PIPE CONNECTION	TYPE		FLARE VALVE	
		SIZE LIQUID	mm/in	6.4 / 1/4	
		SIZE GAS	mm/in	15.9 / 5/8	
REFRIGERANT CHARGE			kg/lb	0.85 / 1.87	1.35 / 2.98

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R22)

MODEL		INDOOR UNIT			MCM 025ER
		OUTDOOR UNIT			MLC 025CR
NOMINAL COOLING CAPACITY				Btu/h	24000
				W	7030
NOMINAL HEATING CAPACITY				Btu/h	25000
				W	7330
NOMINAL TOTAL INPUT POWER (COOLING)				W	2573
NOMINAL TOTAL INPUT POWER (HEATING)				W	2493
NOMINAL RUNNING CURRENT (COOLING)				A	11.5
NOMINAL RUNNING CURRENT (HEATING)				A	11.2
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.73
COP				W/W	2.94
REFRIGERANT TYPE					R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	274 / 580
		MEDIUM		l/s / CFM	250 / 530
		LOW		l/s / CFM	231 / 490
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	50 / 47 / 46
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6
		WIDTH		mm/in	1080 / 42.5
		DEPTH		mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7
		WIDTH		mm/in	1197 / 47.1
		DEPTH		mm/in	740 / 29.1
	UNIT WEIGHT			kg/lb	27 / 60
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	755 / 1600
	SOUND PRESSURE LEVEL			dBA	52
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5
		WIDTH		mm/in	855 / 33.7
		DEPTH		mm/in	328 / 12.9
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9
		WIDTH		mm/in	990 / 39.0
		DEPTH		mm/in	415 / 16.3
	UNIT WEIGHT			kg/lb	62 / 137
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.50 / 3.31

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R22)

MODEL		INDOOR UNIT			MCM 028ER	
		OUTDOOR UNIT			MLC 028CR	MLC 030CR
NOMINAL COOLING CAPACITY				Btu/h	28000	28000
				W	8210	8210
NOMINAL HEATING CAPACITY				Btu/h	28500	28500
				W	8350	8350
NOMINAL TOTAL INPUT POWER (COOLING)				W	2862	2747
NOMINAL TOTAL INPUT POWER (HEATING)				W	2902	2954
NOMINAL RUNNING CURRENT (COOLING)				A	13.7	13.3
NOMINAL RUNNING CURRENT (HEATING)				A	13.8	14.1
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50
EER				W/W	2.87	2.99
COP				W/W	2.88	2.83
REFRIGERANT TYPE					R22	R22
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	OUTDOOR CAP TUBE + TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	302 / 640	
		MEDIUM		l/s / CFM	264 / 560	
		LOW		l/s / CFM	217 / 460	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	56 / 51 / 44	
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	28 / 62	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	741 / 1570	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.5
		WIDTH		mm/in	855 / 33.7	1030 / 40.6
		DEPTH		mm/in	328 / 12.9	400 / 15.8
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.4
		WIDTH		mm/in	990 / 39.0	1200 / 47.2
		DEPTH		mm/in	415 / 16.3	560 / 22.1
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	2.40 / 5.30	2.15 / 4.12

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a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R410A)

MODEL		INDOOR UNIT			M5CM 015E
		OUTDOOR UNIT			M5LC 015C
NOMINAL CAPACITY				Btu/h	12900
				W	3780
NOMINAL TOTAL INPUT POWER				W	1280
NOMINAL RUNNING CURRENT				A	5.8
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.95
REFRIGERANT TYPE					R410A
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	240 / 508
		MEDIUM		l/s / CFM	182 / 386
		LOW		l/s / CFM	165 / 350
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 43 / 41
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6
		WIDTH		mm/in	1080 / 42.5
		DEPTH		mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7
		WIDTH		mm/in	1197 / 47.1
		DEPTH		mm/in	740 / 29.1
	UNIT WEIGHT			kg/lb	26
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	453 / 960
	SOUND PRESSURE LEVEL			dBA	49
	UNIT DIMENSION	HEIGHT		mm/in	540 / 21.3
		WIDTH		mm/in	700 / 27.6
		DEPTH		mm/in	250 / 9.8
	PACKING DIMENSION	HEIGHT		mm/in	620 / 24.4
		WIDTH		mm/in	810 / 31.9
		DEPTH		mm/in	330 / 13.0
	UNIT WEIGHT			kg/lb	32 / 71
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2
REFRIGERANT CHARGE				kg/lb	0.83 / 1.83

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R410A)

MODEL		INDOOR UNIT			M5CM 020E	M5CM 025E
		OUTDOOR UNIT			M5LC 020C	M5LC 025C
NOMINAL CAPACITY - 1Ø / <3Ø>				Btu/h	17500 / <18100>	20000 / <22860>
				W	5130 / <5300>	5860 / <6700>
NOMINAL TOTAL INPUT POWER - 1Ø / <3Ø>				W	1723 / <1757>	1973 / <2231>
NOMINAL RUNNING CURRENT - 1Ø / <3Ø>				A	7.6 / <3.3>	8.8 / <4.2>
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.98 / <3.02>	2.97 / <3.00>
REFRIGERANT TYPE					R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	245 / 520	274 / 580
		MEDIUM		l/s / CFM	217 / 460	250 / 530
		LOW		l/s / CFM	192 / 406	231 / 490
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 46 / 43	50 / 47 / 46
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	27 / 60	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	614 / 1300	689 / 1460
	SOUND PRESSURE LEVEL			dBA	52	52
	UNIT DIMENSION	HEIGHT		mm/in	648 / 25.5	750 / 29.5
		WIDTH		mm/in	855 / 33.7	855 / 33.7
		DEPTH		mm/in	328 / 12.9	328 / 12.9
	PACKING DIMENSION	HEIGHT		mm/in	710 / 28.0	810 / 31.9
		WIDTH		mm/in	990 / 39.0	990 / 39.0
		DEPTH		mm/in	415 / 16.3	415 / 16.3
	UNIT WEIGHT			kg/lb	59 / 130	62 / 137
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.4 / 1/4	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.40 / 3.09	1.65 / 3.64

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - COOLING ONLY (R410A)

MODEL		INDOOR UNIT			M5CM 028E	
		OUTDOOR UNIT			M5LC 028C	M5LC 035C
NOMINAL CAPACITY - 1Ø / <3Ø>				Btu/h	26000 / <26000>	30000 / <30000>
				W	7620/ <7620>	8790 / <8790>
NOMINAL TOTAL INPUT POWER - 1Ø / <3Ø>				W	2670 / <2715>	2917 / <2817>
NOMINAL RUNNING CURRENT - 1Ø / <3Ø>				A	12.6 / <4.7>	14.5 / <3.6>
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.85 / <2.81>	3.01 / <3.12>
REFRIGERANT TYPE					R410A	R410A
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	OUTDOOR CAP. TUBE & TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	302 / 640	
		MEDIUM		l/s / CFM	264 / 560	
		LOW		l/s / CFM	217 / 460	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	56 / 51 / 44	
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	28 / 62	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	684 / 1450	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.5
		WIDTH		mm/in	855 / 33.7	1030 / 40.6
		DEPTH		mm/in	328 / 12.9	400 / 15.8
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.4
		WIDTH		mm/in	990 / 39.0	1200 / 47.2
		DEPTH		mm/in	415 / 16.3	560 / 22.1
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.70 / 3.75	1.90 / 4.19

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R410A)

MODEL		INDOOR UNIT			M5CM 015ER
		OUTDOOR UNIT			M5LC 015CR
NOMINAL COOLING CAPACITY				Btu/h	12900
				W	3780
NOMINAL HEATING CAPACITY				Btu/h	11800
				W	3460
NOMINAL TOTAL INPUT POWER (COOLING)				W	1268
NOMINAL TOTAL INPUT POWER (HEATING)				W	1138
NOMINAL RUNNING CURRENT (COOLING)				A	6.0
NOMINAL RUNNING CURRENT (HEATING)				A	5.1
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50
EER				W/W	2.98
COP				W/W	3.04
REFRIGERANT TYPE					R410A
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL
	AIR FLOW	HIGH		l/s / CFM	240 / 508
		MEDIUM		l/s / CFM	182 / 386
		LOW		l/s / CFM	165 / 350
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 43 / 41
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6
		WIDTH		mm/in	1080 / 42.5
		DEPTH		mm/in	630 / 24.8
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7
		WIDTH		mm/in	1197 / 47.1
		DEPTH		mm/in	740 / 29.1
	UNIT WEIGHT			kg/lb	26
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	453 / 960
	SOUND PRESSURE LEVEL			dBA	49
	UNIT DIMENSION	HEIGHT		mm/in	540 / 21.3
		WIDTH		mm/in	700 / 27.6
		DEPTH		mm/in	250 / 9.8
	PACKING DIMENSION	HEIGHT		mm/in	620 / 24.4
		WIDTH		mm/in	810 / 31.9
		DEPTH		mm/in	330 / 13.0
	UNIT WEIGHT			kg/lb	32 / 71
	PIPE CONNECTION	TYPE			FLARE VALVE
		SIZE	LIQUID	mm/in	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2
REFRIGERANT CHARGE				kg/lb	0.83 / 1.83

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3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R410A)

MODEL				INDOOR UNIT	M5CM 020ER	M5CM 025ER
				OUTDOOR UNIT	M5LC 020CR	M5LC 025CR
NOMINAL COOLING CAPACITY - 1Ø / <3Ø>				Btu/h	17500 / <18100>	20000 / <26000>
				W	5130 / <5300>	5860 / <6700>
NOMINAL HEATING CAPACITY - 1Ø / <3Ø>				Btu/h	18500 / <18770>	22000 / <23200>
				W	5420 / <5500>	6450 / <6800>
NOMINAL TOTAL INPUT POWER (COOLING) - 1Ø / <3Ø>				W	1723 / <1757>	1973 / <2231>
NOMINAL TOTAL INPUT POWER (HEATING) - 1Ø / <3Ø>				W	1493 / <1527>	2003 / <2124>
NOMINAL RUNNING CURRENT (COOLING) - 1Ø / <3Ø>				A	7.6 / <3.3>	8.9 / <4.2>
NOMINAL RUNNING CURRENT (HEATING) - 1Ø / <3Ø>				A	6.6 / <2.8>	9.1 / <4.0>
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.98 / <3.02>	2.97 / <3.00>
COP - 1Ø / <3Ø>				W/W	3.63 / <3.60>	3.22 / <3.20>
REFRIGERANT TYPE					R410A	
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	245 / 520	274 / 580
		MEDIUM		l/s / CFM	217 / 460	250 / 530
		LOW		l/s / CFM	192 / 406	231 / 490
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	0
	SOUND PRESSURE LEVEL (H/M/L)			dBA	48 / 46 / 43	50 / 47 / 46
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	27 / 60	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	614 / 1300	689 / 1460
	SOUND PRESSURE LEVEL			dBA	52	52
	UNIT DIMENSION	HEIGHT		mm/in	648 / 25.5	750 / 29.5
		WIDTH		mm/in	855 / 33.7	855 / 33.7
		DEPTH		mm/in	328 / 12.9	328 / 12.9
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	810 / 31.9
		WIDTH		mm/in	990 / 39.0	990 / 39.0
		DEPTH		mm/in	415 / 16.3	415 / 16.3
	UNIT WEIGHT			kg/lb	59 / 130	62 / 137
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	6.4 / 1/4	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.40 / 3.09	1.65 / 3.64

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b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

GENERAL DATA - HEATPUMP (R410A)

MODEL				INDOOR UNIT	M5CM 028ER	
				OUTDOOR UNIT	M5LC 028CR	M5LC 035CR
NOMINAL COOLING CAPACITY - 1Ø / <3Ø>				Btu/h	26000 / <26000>	30000 / <30000>
				W	7620 / <7620>	8790 / <8790>
NOMINAL HEATING CAPACITY - 1Ø / <3Ø>				Btu/h	26500 / <26500>	31000 / <31000>
				W	7770 / <7770>	9090 / <9090>
NOMINAL TOTAL INPUT POWER (COOLING) - 1Ø / <3Ø>				W	2670 / <2715>	2917 / <2817>
NOMINAL TOTAL INPUT POWER (HEATING) - 1Ø / <3Ø>				W	2420 / <2378>	2777 / <2667>
NOMINAL RUNNING CURRENT (COOLING) - 1Ø / <3Ø>				A	12.6 / <4.7>	14.5 / <3.6>
NOMINAL RUNNING CURRENT (HEATING) - 1Ø / <3Ø>				A	11.7 / <4.3>	13.6 / <3.4>
POWER SOURCE				V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
EER - 1Ø / <3Ø>				W/W	2.85 / <2.81>	3.01 / <3.12>
COP - 1Ø / <3Ø>				W/W	3.21 / <3.27>	3.27 / <3.41>
REFRIGERANT TYPE					R410A	R410A
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	OUTDOOR CAP. TUBE & TXV
INDOOR UNIT	CONTROL	AIR DISCHARGE			AUTOMATIC LOUVER (UP & DOWN)	
		OPERATION			WIRELESS OR WIRED MICROCOMPUTER REMOTE CONTROL	
	AIR FLOW	HIGH		l/s / CFM	302 / 640	
		MEDIUM		l/s / CFM	264 / 560	
		LOW		l/s / CFM	217 / 460	
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	0	
	SOUND PRESSURE LEVEL (H/M/L)			dBA	56 / 51 / 44	
	UNIT DIMENSION	HEIGHT		mm/in	218 / 8.6	
		WIDTH		mm/in	1080 / 42.5	
		DEPTH		mm/in	630 / 24.8	
	PACKING DIMENSION	HEIGHT		mm/in	297 / 11.7	
		WIDTH		mm/in	1197 / 47.1	
		DEPTH		mm/in	740 / 29.1	
	UNIT WEIGHT			kg/lb	28 / 62	
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	
OUTDOOR UNIT	AIR FLOW			l/s / CFM	684 / 1450	1605 / 3400
	SOUND PRESSURE LEVEL			dBA	54	58
	UNIT DIMENSION	HEIGHT		mm/in	750 / 29.5	850 / 33.5
		WIDTH		mm/in	855 / 33.7	1030 / 40.6
		DEPTH		mm/in	328 / 12.9	400 / 15.8
	PACKING DIMENSION	HEIGHT		mm/in	810 / 31.9	1000 / 39.4
		WIDTH		mm/in	990 / 39.0	1200 / 47.2
		DEPTH		mm/in	415 / 16.3	560 / 22.1
	UNIT WEIGHT			kg/lb	68 / 150	95 / 209
	PIPE CONNECTION	TYPE			FLARE VALVE	
		SIZE	LIQUID	mm/in	9.5 / 3/8	9.5 / 3/8
			GAS	mm/in	15.9 / 5/8	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.70 / 3.75	1.90 / 4.19

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COMPONENTS DATA (R22)

MODEL	**INDOOR UNIT**				**MCM 015E**
	OUTDOOR UNIT				**MLC 015C**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	404 / 16
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				ATMOS M60 or SUNISO 4GDID
	OIL AMOUNT			**cm^3 / fl.oz.**	350 / 11.8
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.27 / 2.90
		ROW			2
		FIN PER INCH			16
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.36 / 3.88
		ROW			1
		FIN PER INCH			20
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R22)

MODEL	INDOOR UNIT			MCM 020E	
	OUTDOOR UNIT			MLC 018C	MLC 020C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	
COMPRESSOR	TYPE			ROTARY	
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID	
	OIL AMOUNT		cm^3 / fl.oz.	670 / 23.6	
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		2	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (RAISE LANCE)	
		THICKNESS	mm/in	0.10 / 0.004	
		FACE AREA	m^2/ft^2	0.52 / 5.59	
		ROW		1	2
		FIN PER INCH		20	24
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R22)

MODEL	**INDOOR UNIT**				**MCM 025E**
	OUTDOOR UNIT				**MLC 025C**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	457 / 18
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				ATMOS NM56M or SUNISO 4GDID
	OIL AMOUNT			**cm^3 / fl.oz.**	700 / 24.6
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.27 / 2.90
		ROW			3
		FIN PER INCH			18
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.62 / 6.67
		ROW			2
		FIN PER INCH			18
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R22)

MODEL	INDOOR UNIT			MCM 028E	
	OUTDOOR UNIT			MLC 028C	MLC 030C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	-
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			ATMOS M60 or SUNISO 4GDID	MINERAL (Sontex 200 LT)
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		3	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.33 / 0.013	0.35 / 0.014
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	ALUMINIUM (SLIT FIN)
		THICKNESS	mm/in	0.12 / 0.005	0.12 / 0.005
		FACE AREA	m^2/ft^2	0.61 / 6.52	0.87 / 9.33
		ROW		2	1
		FIN PER INCH		18	16
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R22)

MODEL	**INDOOR UNIT**				**MCM 015ER**
	OUTDOOR UNIT				**MLC 015CR**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	404 / 16
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				ATMOS M60 or SUNISO 4GDID
	OIL AMOUNT			**cm^3 / fl.oz.**	350 / 11.8
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.27 / 2.90
		ROW			2
		FIN PER INCH			16
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.36 / 3.88
		ROW			1
		FIN PER INCH			20
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R22)

MODEL	INDOOR UNIT			MCM 020ER	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18.0	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	
COMPRESSOR	TYPE			ROTARY	
	OIL TYPE			ATMOS NM56M or SUNISO 4GDID	
	OIL AMOUNT		cm^3 / fl.oz.	670 / 23.6	
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		2	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (RAISE LANCE)	
		THICKNESS	mm/in	0.10 / 0.004	
		FACE AREA	m^2/ft^2	0.52 / 5.59	
		ROW		1	2
		FIN PER INCH		20	24
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R22)

MODEL	**INDOOR UNIT**				**MCM 025ER**
	OUTDOOR UNIT				**MLC 025CR**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL SYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	457 / 18
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				ATMOS NM56M or SUNISO 4GDID
	OIL AMOUNT			**cm^3 / fl.oz.**	700 / 24.6
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.27 / 2.90
		ROW			3
		FIN PER INCH			18
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.62 / 6.67
		ROW			2
		FIN PER INCH			18
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R22)

MODEL	INDOOR UNIT			MCM 028ER	
	OUTDOOR UNIT			MLC 028CR	MLC 030CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	-
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			ATMOS M60 or SUNISO 4GDID	MINERAL (Sontex 200 LT)
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1240 / 43.6
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		3	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	9.52 / 3/8	9.52 / 3/8
		THICKNESS	mm/in	0.33 / 0.013	0.35 / 0.014
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.12 / 0.005	0.12 / 0.005
		FACE AREA	m^2/ft^2	0.61 / 6.52	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	16
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R410A)

MODEL	**INDOOR UNIT**				**M5CM 015E**
	OUTDOOR UNIT				**M5LC 015C**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	404 / 16
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				RB68A or Freol Alpha68M
	OIL AMOUNT			**cm^3 / fl.oz.**	430 / 15.1
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.26 / 2.90
		ROW			2
		FIN PER INCH			16
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.360 / 3.940
		ROW			1
		FIN PER INCH			20
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R410A)

MODEL	INDOOR UNIT				M5CM 020E	M5CM 025E
	OUTDOOR UNIT				M5LC 020C	M5LC 025C
INDOOR FAN	TYPE				CROSS FLOW	
	QUANTITY				2	
	MATERIAL				ABS	
	DRIVE				DIRECT	
	DIAMETER			mm/in	146 / 5.75	
	LENGTH			mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE				INDUCTION	
	QUANTITY				1	
	INDEX OF PROTECTION (IP)				N/A	
OUTDOOR FAN	TYPE				PROPELLER	
	QUANTITY				1	
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE				DIRECT	
	DIAMETER			mm/in	457 / 18	
OUTDOOR FAN MOTOR	TYPE				INDUCTION	
	QUANTITY				1	
	INDEX OF PROTECTION (IP)				IP54	
COMPRESSOR	TYPE				ROTARY	
	OIL TYPE				RB68A or Freol Alpha68M	
	OIL AMOUNT			cm^3 / fl.oz.	670 / 23.6	1130 / 39.8
INDOOR COIL	TUBE	MATERIAL			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		mm/in	7.00 / 0.276	
		THICKNESS		mm/in	0.28 / 0.011	
	FIN	MATERIAL			ALUMINIUM (SLIT FIN)	
		THICKNESS		mm/in	0.11 / 0.0043	
		FACE AREA		m^2/ft^2	0.27 / 2.90	
		ROW			3	
		FIN PER INCH			18	
OUTDOOR COIL	TUBE	MATERIAL			SEAMLESS INNER GROOVE COPPER	
		DIAMETER		mm/in	7.00 / 0.276	
		THICKNESS		mm/in	0.28 / 0.011	
	FIN	MATERIAL			ALUMINIUM (RAISE LANCE)	ALUMINIUM (RAISE LANCE)
		THICKNESS		mm/in	0.10 / 0.004	0.10 / 0.004
		FACE AREA		m^2/ft^2	0.510 / 5.460	0.620 / 6.630
		ROW			2	2
		FIN PER INCH			18	18
AIR QUALITY	FILTER	TYPE			WASHABLE SARANET FILTER	
		QUANTITY		pc	2	
		SIZE	LENGTH	mm/in	309.20 / 12.17	
			WIDTH	mm/in	383.00 / 15.08	
			THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT			MATERIAL	PS	
				FINISHING	ETCHING SURFACE	
				COLOUR	LIGHT GREY	
	OUTDOOR UNIT			MATERIAL	GALVANISED MILD STEEL	
				FINISHING	POLYESTER POWDER	
				COLOUR	LIGHT GREY	

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COMPONENTS DATA (R410A)

MODEL	INDOOR UNIT			M5CM 028E	
	OUTDOOR UNIT			M5LC 028C	M5LC 035C
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	N/A
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			RB68A or Freol Alpha68M	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1242 / 43.7
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		3	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	7.00 / 0.276	7.00 / 0.276
		THICKNESS	mm/in	0.28 / 0.011	0.28 / 0.011
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.620 / 6.630	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R410A)

MODEL	**INDOOR UNIT**				**M5CM 015ER**
	OUTDOOR UNIT				**M5LC 015CR**
INDOOR FAN	**TYPE**				CROSS FLOW
	QUANTITY				2
	MATERIAL				ABS
	DRIVE				DIRECT
	DIAMETER			**mm/in**	146 / 5.75
	LENGTH			**mm/in**	200 / 7.87
INDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				N/A
OUTDOOR FAN	**TYPE**				PROPELLER
	QUANTITY				1
	MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN
	DRIVE				DIRECT
	DIAMETER			**mm/in**	404 / 16
OUTDOOR FAN MOTOR	**TYPE**				INDUCTION
	QUANTITY				1
	INDEX OF PROTECTION (IP)				IP54
COMPRESSOR	**TYPE**				ROTARY
	OIL TYPE				RB68A or Freol Alpha68M
	OIL AMOUNT			**cm^3 / fl.oz.**	430 / 15.1
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.26 / 2.90
		ROW			2
		FIN PER INCH			16
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (RAISE LANCE)
		THICKNESS		**mm/in**	0.10 / 0.004
		FACE AREA		**m^2/ft^2**	0.360 / 3.940
		ROW			1
		FIN PER INCH			20
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER
		QUANTITY		**pc**	2
		SIZE	**LENGTH**	**mm/in**	309.20 / 12.17
			WIDTH	**mm/in**	383.00 / 15.08
			THICKNESS	**mm/in**	2.25 / 0.09
CASING	**INDOOR UNIT**			**MATERIAL**	PS
				FINISHING	ETCHING SURFACE
				COLOUR	LIGHT GREY
	OUTDOOR UNIT			**MATERIAL**	GALVANISED MILD STEEL
				FINISHING	POLYESTER POWDER
				COLOUR	LIGHT GREY

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COMPONENTS DATA (R410A)

MODEL	INDOOR UNIT			M5CM 020ER	M5CM 025ER
	OUTDOOR UNIT			M5LC 020CR	M5LC 025CR
INDOOR FAN	TYPE			CROSS FLOW	
	QUANTITY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	QUANTITY			1	
	MATERIAL			GLASS REINFORCED ACRYL SYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	QUANTITY			1	
	INDEX OF PROTECTION (IP)			IP54	
COMPRESSOR	TYPE			ROTARY	
	OIL TYPE			RB68A or Freol Alpha68M	
	OIL AMOUNT		cm^3 / fl.oz.	670 / 23.6	1130 / 39.8
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		3	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (RAISE LANCE)	ALUMINIUM (RAISE LANCE)
		THICKNESS	mm/in	0.10 / 0.004	0.10 / 0.004
		FACE AREA	m^2/ft^2	0.510 / 5.460	0.620 / 6.630
		ROW		2	2
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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COMPONENTS DATA (R410A)

MODEL	INDOOR UNIT			M5CM 028ER	
	OUTDOOR UNIT			M5LC 028CR	M5LC 035CR
INDOOR FAN	TYPE			CROSS FLOW	
	Q'TY			2	
	MATERIAL			ABS	
	DRIVE			DIRECT	
	DIAMETER		mm/in	146 / 5.75	
	LENGTH		mm/in	200 / 7.87	
INDOOR FAN MOTOR	TYPE			INDUCTION	
	Q'TY			1	
	INDEX OF PROTECTION (IP)			N/A	
OUTDOOR FAN	TYPE			PROPELLER	
	Q'TY			1	
	MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN	
	DRIVE			DIRECT	
	DIAMETER		mm/in	457 / 18	609.6 / 24
OUTDOOR FAN MOTOR	TYPE			INDUCTION	
	Q'TY			1	
	INDEX OF PROTECTION (IP)			IP54	-
COMPRESSOR	TYPE			ROTARY	SCROLL
	OIL TYPE			RB68A or Freol Alpha68M	MOBIL EAL ARCTIC 22CC
	OIL AMOUNT		cm^3 / fl.oz.	1130 / 39.8	1242 / 43.7
INDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	
		DIAMETER	mm/in	7.00 / 0.276	
		THICKNESS	mm/in	0.28 / 0.011	
	FIN	MATERIAL		ALUMINIUM (SLIT FIN)	
		THICKNESS	mm/in	0.11 / 0.0043	
		FACE AREA	m^2/ft^2	0.27 / 2.90	
		ROW		3	
		FIN PER INCH		18	
OUTDOOR COIL	TUBE	MATERIAL		SEAMLESS INNER GROOVE COPPER	SEAMLESS COPPER
		DIAMETER	mm/in	7.00 / 0.276	7.00 / 0.276
		THICKNESS	mm/in	0.28 / 0.011	0.28 / 0.011
	FIN	MATERIAL		ALUMINIUM (CORR. FIN)	ALUMINIUM (CORR. FIN)
		THICKNESS	mm/in	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA	m^2/ft^2	0.620 / 6.630	0.87 / 9.33
		ROW		2	2
		FIN PER INCH		18	18
AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER	
		QUANTITY	pc	2	
		SIZE LENGTH	mm/in	309.20 / 12.17	
		SIZE WIDTH	mm/in	383.00 / 15.08	
		SIZE THICKNESS	mm/in	2.25 / 0.09	
CASING	INDOOR UNIT		MATERIAL	PS	
			FINISHING	ETCHING SURFACE	
			COLOUR	LIGHT GREY	
	OUTDOOR UNIT		MATERIAL	GALVANISED MILD STEEL	
			FINISHING	POLYESTER POWDER	
			COLOUR	LIGHT GREY	

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SAFETY DEVICES

MODEL	INDOOR UNIT			MCM 015E
	OUTDOOR UNIT			MLC 015C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 020E	
	OUTDOOR UNIT			MLC 018C	MLC 020C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			MCM 025E
	OUTDOOR UNIT			MLC 025C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 028E	
	OUTDOOR UNIT			MLC 028C	MLC 030C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	2937 / 426
		CLOSE	kPa / psi	N/A	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	124 / 18
		CLOSE	kPa / psi	N/A	193 / 28
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

SAFETY DEVICES

MODEL	INDOOR UNIT			MCM 015ER
	OUTDOOR UNIT			MLC 015CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 020ER	
	OUTDOOR UNIT			MLC 018CR	MLC 020CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	LOW PRESSURE SWITCH	TYPE		N/A	
		OPEN	kPa / psi	N/A	
		CLOSE	kPa / psi	N/A	
	PHASE SEQUENCER			N/A	
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	

MODEL	INDOOR UNIT			MCM 025ER
	OUTDOOR UNIT			MLC 025CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			MCM 028ER	
	OUTDOOR UNIT			MLC 028CR	MLC 030CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	2937 / 426
		CLOSE	kPa / psi	N/A	2413 / 350
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

SAFETY DEVICES

MODEL	INDOOR UNIT			M5CM 015E
	OUTDOOR UNIT			M5LC 015C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			M5CM 020E
	OUTDOOR UNIT			M5LC 020C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 025E
	OUTDOOR UNIT			M5LC 025C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 028E	
	OUTDOOR UNIT			M5LC 028C	M5LC 035C
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	4140 / 600
		CLOSE	kPa / psi	N/A	3312 / 480
	LOW PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	48 / 7
		CLOSE	kPa / psi	N/A	152 / 22
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

SAFETY DEVICES

MODEL	INDOOR UNIT			M5CM 015ER
	OUTDOOR UNIT			M5LC 015CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A

MODEL	INDOOR UNIT			M5CM 020ER
	OUTDOOR UNIT			M5LC 020CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 025ER
	OUTDOOR UNIT			M5LC 025CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>

MODEL	INDOOR UNIT			M5CM 028ER	
	OUTDOOR UNIT			M5LC 028CR	M5LC 035CR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	4140 / 600
		CLOSE	kPa / psi	N/A	3312 / 480
	LOW PRESSURE SWITCH	TYPE		N/A	NC
		OPEN	kPa / psi	N/A	48 / 7
		CLOSE	kPa / psi	N/A	152 / 22
	PHASE SEQUENCER - 1Ø / <3Ø>			N/A / <YES>	N/A / <YES>
	DISCHARGE THERMOSTAT SETTING - 1Ø / <3Ø>		°C / °F	N/A / <130 / 266>	N/A / <130 / 266>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Performance Data

Interpolation and *Extrapolation* method can be used to get the total capacity, Q and sensible capacity, SC at those temperatures which are not stated out in the table.

Example:

Model: MCM 015E / MLC 015C
Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Solution:

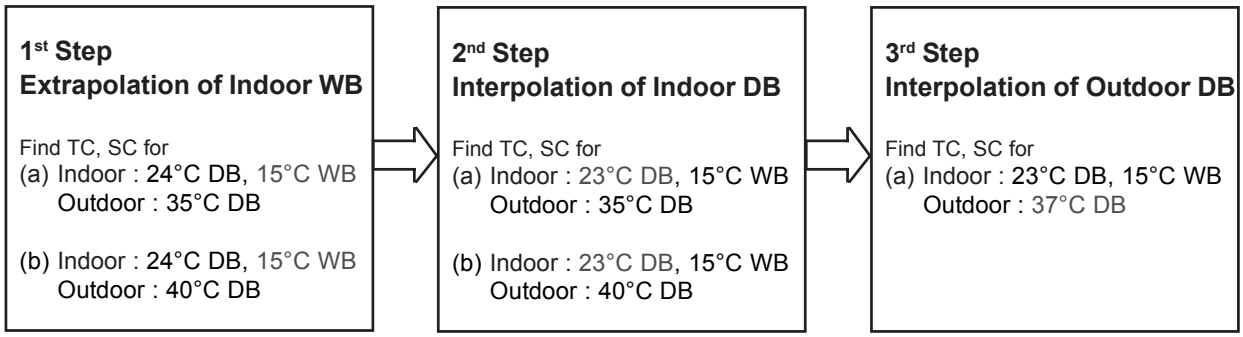
Overall
Based on the Performance table in page 67,

1. Refer to the Indoor DB column,
   - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)

2. Refer to the Indoor WB column,
   - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)

3. Refer to the Outdoor DB column,
   - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.


1st Step
Extrapolation of Indoor WB
Find TC, SC for
(a) Indoor : 24°C DB, 15°C WB
Outdoor : 35°C DB
(b) Indoor : 24°C DB, 15°C WB
Outdoor : 40°C DB
2nd Step
Interpolation of Indoor DB
Find TC, SC for
(a) Indoor : 23°C DB, 15°C WB
Outdoor : 35°C DB
(b) Indoor : 23°C DB, 15°C WB
Outdoor : 40°C DB
3rd Step
Interpolation of Outdoor DB
Find TC, SC for
(a) Indoor : 23°C DB, 15°C WB
Outdoor : 37°C DB

Details:

1st Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 35°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			35		
			TC (kW)	SC (kW)	
24	15		x_1	y_1	
	16		3.363	2.381	
	17		3.431	2.288	

Total capacity, TC

$\Rightarrow$ x_1 = 3.295kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17°C - 15°C}{17°C - 16°C} = \frac{2.288kW - y_1}{2.288kW - 2.381kW}$$

$\Rightarrow$ y_1 = 2.474kW

(b) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			40		
			TC (kW)	SC (kW)	
24	15		x_2	y_2	
	16		3.066	2.056	
	17		3.137	1.954	

Total capacity, TC

$\Rightarrow$ x_2 = 2.995kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17°C - 15°C}{17°C - 16°C} = \frac{1.954kW - y_2}{1.954kW - 2.056kW}$$

$\Rightarrow$ y_2 = 2.158kW

***** *This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

2nd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			35		
			TC (kW)	SC (kW)	
20	**15**		3.295	1.510	
23	**15**		x_3	y_3	
24	**15**		3.295	2.474	

Total capacity, TC

$\Rightarrow$ x_3 = 3.295kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24°C - 20°C}{24°C - 23°C} = \frac{2.474kW - 1.510kW}{2.474kW - y_3}$$

$\Rightarrow$ y_3 = 2.233kW

(b) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			40		
			TC (kW)	SC (kW)	
20	**15**		2.995	1.195	
23	**15**		x_4	y_4	
24	**15**		2.995	2.158	

Total capacity, TC

$\Rightarrow$ x_4 = 2.995kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24°C - 20°C}{24°C - 23°C} = \frac{2.158kW - 1.195kW}{2.158kW - y_4}$$

$\Rightarrow$ y_4 = 1.917kW

** This is due to 2 different conditions with same WB temperature will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

3rd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 37°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C						
			35		37		40	
			TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
23	**15**	- - - - -	3.295	2.233	**x**	**y**	2.995	1.917

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{40°C - 35°C}{40°C - 37°C} = \frac{2.995kW - 3.295kW}{2.995kW - x}$$

$$\Rightarrow x = 3.175kW$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40°C - 35°C}{40°C - 37°C} = \frac{1.917kW - 2.233kW}{1.917kW - y}$$

$$\Rightarrow y = 2.107kW$$

PERFORMANCE TABLES

R22 MODELS
(COOLING ONLY)

MODEL : MCM 015E / MLC 015C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	4.198	2.455	3.897	2.140	3.596	1.825	3.295	1.510	2.995	1.195	2.634	0.816
	16	4.255	2.390	3.958	2.065	3.660	1.741	3.363	1.417	3.066	1.093	2.709	0.704
24	16	4.255	3.353	3.958	3.029	3.660	2.705	3.363	2.381	3.066	2.056	2.709	1.667
	17	4.313	3.288	4.019	2.955	3.725	2.621	3.431	2.288	3.137	1.954	2.784	1.554
	18	4.370	3.224	4.080	2.881	3.789	2.538	3.498	2.195	3.208	1.853	2.859	1.441
	19	4.428	3.159	4.140	2.807	3.853	2.455	3.566	2.103	3.279	1.751	2.934	1.328
	20	4.486	3.095	4.207	2.744	3.928	2.393	3.649	2.042	3.370	1.691	3.036	1.270
28	18	4.370	4.187	4.080	3.844	3.789	3.502	3.498	3.159	3.208	2.816	2.859	2.405
	19	4.428	4.122	4.140	3.770	3.853	3.418	3.566	3.066	3.279	2.714	2.934	2.292
	20	4.486	4.059	4.207	3.708	3.928	3.357	3.649	3.006	3.370	2.655	3.036	2.234
	21	4.544	3.996	4.277	3.653	4.010	3.310	3.742	2.967	3.475	2.624	3.154	2.213
	22	4.603	3.933	4.347	3.598	4.091	3.263	3.836	2.928	3.580	2.593	3.273	2.192
	23	4.661	3.870	4.417	3.543	4.173	3.216	3.929	2.890	3.685	2.563	3.392	2.170
	24	4.720	3.807	4.487	3.489	4.255	3.170	4.022	2.851	3.790	2.532	3.511	2.149
30	20	4.540	4.540	4.207	4.190	3.928	3.839	3.649	3.488	3.370	3.137	3.036	2.716
	21	4.544	4.478	4.277	4.135	4.010	3.792	3.742	3.449	3.475	3.106	3.154	2.695
	22	4.603	4.415	4.347	4.080	4.091	3.745	3.836	3.410	3.580	3.075	3.273	2.673
	23	4.661	4.352	4.417	4.025	4.173	3.698	3.929	3.371	3.685	3.044	3.392	2.652
	24	4.720	4.289	4.487	3.970	4.255	3.651	4.022	3.333	3.790	3.014	3.511	2.631

MODEL : MCM 020E / MLC 018C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.742	3.706	5.396	3.412	5.049	3.117	4.702	2.822	4.355	2.528	3.939	2.174
	16	5.967	3.456	5.597	3.186	5.227	2.916	4.857	2.646	4.487	2.376	4.043	2.052
24	16	5.967	4.367	5.597	4.097	5.227	3.827	4.857	3.557	4.487	3.287	4.043	2.963
	17	6.192	4.116	5.799	3.871	5.406	3.626	5.013	3.381	4.620	3.136	4.148	2.842
	18	6.417	3.866	6.001	3.645	5.585	3.425	5.168	3.205	4.752	2.985	4.252	2.720
	19	6.643	3.615	6.203	3.420	5.763	3.224	5.324	3.029	4.884	2.833	4.357	2.599
	20	6.869	3.364	6.415	3.189	5.962	3.013	5.509	2.838	5.055	2.663	4.511	2.453
28	18	6.417	4.776	6.001	4.556	5.585	4.336	5.168	4.116	4.752	3.895	4.252	3.631
	19	6.643	4.526	6.203	4.330	5.763	4.135	5.324	3.940	4.884	3.744	4.357	3.510
	20	6.869	4.275	6.415	4.099	5.962	3.924	5.509	3.749	5.055	3.574	4.511	3.363
	21	7.096	4.023	6.635	3.865	6.174	3.707	5.713	3.549	5.252	3.390	4.699	3.200
	22	7.323	3.772	6.854	3.631	6.386	3.489	5.917	3.348	5.449	3.207	4.887	3.037
	23	7.549	3.520	7.073	3.396	6.598	3.272	6.122	3.148	5.646	3.023	5.074	2.874
	24	7.776	3.269	7.293	3.162	6.809	3.055	6.326	2.947	5.842	2.840	5.262	2.711
30	20	6.869	4.730	6.415	4.555	5.962	4.380	5.509	4.204	5.055	4.029	4.511	3.819
	21	7.096	4.479	6.635	4.320	6.174	4.162	5.713	4.004	5.252	3.846	4.699	3.656
	22	7.323	4.227	6.854	4.086	6.386	3.945	5.917	3.803	5.449	3.662	4.887	3.493
	23	7.549	3.976	7.073	3.852	6.598	3.727	6.122	3.603	5.646	3.479	5.074	3.330
	24	7.776	3.724	7.293	3.617	6.809	3.510	6.326	3.403	5.842	3.295	5.262	3.167

R22 MODELS
(COOLING ONLY)

MODEL : MCM 020E / MLC 020C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.850	3.645	5.531	3.384	5.213	3.123	4.894	2.862	4.575	2.602	4.193	2.288
	16	6.081	3.339	5.746	3.114	5.410	2.889	5.074	2.664	4.738	2.439	4.335	2.169
24	16	6.081	4.310	5.746	4.085	5.410	3.860	5.074	3.635	4.738	3.410	4.335	3.140
	17	6.313	4.004	5.960	3.814	5.607	3.625	5.254	3.436	4.900	3.247	4.477	3.020
	18	6.544	3.697	6.174	3.544	5.804	3.391	5.433	3.238	5.063	3.085	4.619	2.901
	19	6.776	3.391	6.388	3.274	6.001	3.157	5.613	3.039	5.226	2.922	4.761	2.781
	20	7.008	3.084	6.605	2.993	6.202	2.902	5.800	2.811	5.397	2.720	4.914	2.610
28	18	6.544	4.668	6.174	4.515	5.804	4.362	5.433	4.209	5.063	4.055	4.619	3.872
	19	6.776	4.362	6.388	4.245	6.001	4.127	5.613	4.010	5.226	3.893	4.761	3.752
	20	7.008	4.054	6.605	3.963	6.202	3.872	5.800	3.781	5.397	3.690	4.914	3.581
	21	7.240	3.746	6.823	3.675	6.407	3.604	5.990	3.532	5.574	3.461	5.074	3.376
	22	7.472	3.438	7.041	3.386	6.611	3.335	6.181	3.284	5.750	3.232	5.234	3.170
	23	7.703	3.130	7.259	3.098	6.815	3.066	6.371	3.035	5.927	3.003	5.394	2.965
	24	7.935	2.822	7.477	2.810	7.020	2.798	6.562	2.786	6.104	2.774	5.554	2.759
30	20	7.008	4.540	6.605	4.449	6.202	4.358	5.800	4.267	5.397	4.176	4.914	4.067
	21	7.240	4.232	6.823	4.160	6.407	4.089	5.990	4.018	5.574	3.947	5.074	3.861
	22	7.472	3.923	7.041	3.872	6.611	3.820	6.181	3.769	5.750	3.717	5.234	3.656
	23	7.703	3.615	7.259	3.583	6.815	3.552	6.371	3.520	5.927	3.488	5.394	3.450
	24	7.935	3.307	7.477	3.295	7.020	3.283	6.562	3.271	6.104	3.259	5.554	3.245

MODEL : MCM 025E / MLC 025C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.548	5.116	7.125	4.731	6.702	4.345	6.278	3.960	5.855	3.574	5.347	3.112
	16	7.724	4.701	7.311	4.360	6.897	4.019	6.484	3.678	6.070	3.336	5.573	2.927
24	16	7.724	5.768	7.311	5.427	6.897	5.086	6.484	4.745	6.070	4.404	5.573	3.994
	17	7.900	5.353	7.497	5.056	7.093	4.759	6.689	4.462	6.285	4.166	5.800	3.810
	18	8.077	4.937	7.682	4.685	7.288	4.433	6.894	4.180	6.499	3.928	6.026	3.625
	19	8.253	4.522	7.868	4.314	7.483	4.106	7.099	3.898	6.714	3.690	6.252	3.441
	20	8.428	4.106	8.044	3.938	7.660	3.769	7.275	3.601	6.891	3.433	6.431	3.231
28	18	8.077	6.004	7.682	5.752	7.288	5.500	6.894	5.247	6.499	4.995	6.026	4.692
	19	8.253	5.589	7.868	5.381	7.483	5.173	7.099	4.965	6.714	4.757	6.252	4.508
	20	8.428	5.173	8.044	5.005	7.660	4.837	7.275	4.668	6.891	4.500	6.431	4.298
	21	8.602	4.757	8.212	4.625	7.823	4.493	7.434	4.362	7.044	4.230	6.577	4.072
	22	8.776	4.340	8.381	4.245	7.986	4.150	7.592	4.055	7.197	3.960	6.723	3.845
	23	8.950	3.924	8.550	3.865	8.150	3.807	7.750	3.748	7.350	3.689	6.869	3.619
	24	9.125	3.508	8.719	3.486	8.313	3.463	7.908	3.441	7.502	3.419	7.015	3.393
30	20	8.428	5.707	8.044	5.538	7.660	5.370	7.275	5.202	6.891	5.034	6.431	4.832
	21	8.602	5.290	8.212	5.159	7.823	5.027	7.434	4.895	7.044	4.763	6.577	4.605
	22	8.776	4.874	8.381	4.779	7.986	4.684	7.592	4.588	7.197	4.493	6.723	4.379
	23	8.950	4.458	8.550	4.399	8.150	4.340	7.750	4.282	7.350	4.223	6.869	4.153
	24	9.125	4.041	8.719	4.019	8.313	3.997	7.908	3.975	7.502	3.953	7.015	3.926

R22 MODELS
(COOLING ONLY)

MODEL : MCM 028E / MLC 028C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.627	5.602	8.148	5.215	7.669	4.828	7.190	4.441	6.711	4.054	6.136	3.589
	16	9.034	5.190	8.509	4.841	7.985	4.492	7.460	4.142	6.935	3.793	6.306	3.374
24	16	9.034	6.458	8.509	6.109	7.985	5.760	7.460	5.410	6.935	5.061	6.306	4.642
	17	9.442	6.047	8.871	5.735	8.301	5.423	7.730	5.112	7.160	4.800	6.475	4.426
	18	9.849	5.635	9.233	5.361	8.617	5.087	8.001	4.813	7.385	4.540	6.645	4.211
	19	10.256	5.223	9.595	4.987	8.933	4.751	8.271	4.515	7.609	4.279	6.815	3.996
	20	10.665	4.811	9.971	4.607	9.276	4.403	8.581	4.200	7.887	3.996	7.053	3.751
28	18	9.849	6.903	9.233	6.629	8.617	6.355	8.001	6.081	7.385	5.807	6.645	5.479
	19	10.256	6.491	9.595	6.255	8.933	6.019	8.271	5.783	7.609	5.547	6.815	5.264
	20	10.665	6.078	9.971	5.875	9.276	5.671	8.581	5.467	7.887	5.264	7.053	5.019
	21	11.075	5.666	10.356	5.491	9.637	5.315	8.918	5.140	8.199	4.965	7.336	4.755
	22	11.485	5.253	10.742	5.106	9.999	4.960	9.255	4.813	8.512	4.667	7.620	4.491
	23	11.895	4.840	11.128	4.722	10.360	4.604	9.592	4.486	8.824	4.368	7.903	4.226
	24	12.305	4.427	11.513	4.338	10.721	4.248	9.929	4.159	9.137	4.069	8.186	3.962
30	20	10.665	6.712	9.971	6.509	9.276	6.305	8.581	6.101	7.887	5.897	7.053	5.653
	21	11.075	6.300	10.356	6.124	9.637	5.949	8.918	5.774	8.199	5.599	7.336	5.389
	22	11.485	5.887	10.742	5.740	9.999	5.594	9.255	5.447	8.512	5.300	7.620	5.124
	23	11.895	5.474	11.128	5.356	10.360	5.238	9.592	5.120	8.824	5.002	7.903	4.860
	24	12.305	5.061	11.513	4.972	10.721	4.882	9.929	4.793	9.137	4.703	8.186	4.596

MODEL : MCM 028E / MLC 030C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.897	5.879	8.367	5.441	7.837	5.003	7.307	4.564	6.778	4.126	6.142	3.600
	16	9.245	5.407	8.681	5.018	8.117	4.629	7.553	4.240	6.989	3.851	6.312	3.385
24	16	9.245	6.675	8.681	6.286	8.117	5.897	7.553	5.508	6.989	5.119	6.312	4.653
	17	9.594	6.203	8.995	5.863	8.397	5.524	7.798	5.184	7.200	4.844	6.482	4.437
	18	9.942	5.731	9.309	5.441	8.677	5.150	8.044	4.860	7.411	4.570	6.652	4.221
	19	10.290	5.259	9.623	5.018	8.956	4.777	8.289	4.536	7.622	4.295	6.822	4.006
	20	10.640	4.786	9.952	4.589	9.263	4.392	8.575	4.195	7.886	3.997	7.060	3.761
28	18	9.942	6.999	9.309	6.708	8.677	6.418	8.044	6.128	7.411	5.837	6.652	5.489
	19	10.290	6.527	9.623	6.286	8.956	6.045	8.289	5.804	7.622	5.563	6.822	5.273
	20	10.640	6.054	9.952	5.857	9.263	5.660	8.575	5.462	7.886	5.265	7.060	5.028
	21	10.992	5.581	10.290	5.424	9.588	5.267	8.887	5.109	8.185	4.952	7.344	4.764
	22	11.343	5.108	10.628	4.991	9.914	4.874	9.199	4.757	8.485	4.639	7.627	4.499
	23	11.694	4.635	10.966	4.558	10.239	4.481	9.511	4.404	8.784	4.326	7.911	4.234
	24	12.045	4.162	11.304	4.125	10.564	4.088	9.823	4.051	9.083	4.014	8.195	3.969
30	20	10.640	6.688	9.952	6.491	9.263	6.293	8.575	6.096	7.886	5.899	7.060	5.662
	21	10.992	6.215	10.290	6.058	9.588	5.901	8.887	5.743	8.185	5.586	7.344	5.397
	22	11.343	5.742	10.628	5.625	9.914	5.508	9.199	5.390	8.485	5.273	7.627	5.133
	23	11.694	5.269	10.966	5.192	10.239	5.115	9.511	5.037	8.784	4.960	7.911	4.868
	24	12.045	4.796	11.304	4.759	10.564	4.722	9.823	4.685	9.083	4.648	8.195	4.603

R22 MODELS
(HEATPUMP)

MODEL : MCM 015ER / MLC 015CR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	4.198	2.455	3.897	2.140	3.596	1.825	3.295	1.510	2.995	1.195	2.634	0.816
	16	4.255	2.390	3.958	2.065	3.660	1.741	3.363	1.417	3.066	1.093	2.709	0.704
24	16	4.255	3.353	3.958	3.029	3.660	2.705	3.363	2.381	3.066	2.056	2.709	1.667
	17	4.313	3.288	4.019	2.955	3.725	2.621	3.431	2.288	3.137	1.954	2.784	1.554
	18	4.370	3.224	4.080	2.881	3.789	2.538	3.498	2.195	3.208	1.853	2.859	1.441
	19	4.428	3.159	4.140	2.807	3.853	2.455	3.566	2.103	3.279	1.751	2.934	1.328
	20	4.486	3.095	4.207	2.744	3.928	2.393	3.649	2.042	3.370	1.691	3.036	1.270
28	18	4.370	4.187	4.080	3.844	3.789	3.502	3.498	3.159	3.208	2.816	2.859	2.405
	19	4.428	4.122	4.140	3.770	3.853	3.418	3.566	3.066	3.279	2.714	2.934	2.292
	20	4.486	4.059	4.207	3.708	3.928	3.357	3.649	3.006	3.370	2.655	3.036	2.234
	21	4.544	3.996	4.277	3.653	4.010	3.310	3.742	2.967	3.475	2.624	3.154	2.213
	22	4.603	3.933	4.347	3.598	4.091	3.263	3.836	2.928	3.580	2.593	3.273	2.192
	23	4.661	3.870	4.417	3.543	4.173	3.216	3.929	2.890	3.685	2.563	3.392	2.170
	24	4.720	3.807	4.487	3.489	4.255	3.170	4.022	2.851	3.790	2.532	3.511	2.149
30	20	4.540	4.540	4.207	4.190	3.928	3.839	3.649	3.488	3.370	3.137	3.036	2.716
	21	4.544	4.478	4.277	4.135	4.010	3.792	3.742	3.449	3.475	3.106	3.154	2.695
	22	4.603	4.415	4.347	4.080	4.091	3.745	3.836	3.410	3.580	3.075	3.273	2.673
	23	4.661	4.352	4.417	4.025	4.173	3.698	3.929	3.371	3.685	3.044	3.392	2.652
	24	4.720	4.289	4.487	3.970	4.255	3.651	4.022	3.333	3.790	3.014	3.511	2.631

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	1.760	1.760	2.115	2.115	2.233	2.233	3.532	3.532	4.241	4.241	4.596	4.596	4.950	4.950
17	1.738	1.738	2.079	2.079	2.192	2.192	3.471	3.471	4.127	4.127	4.468	4.468	4.809	4.809
19	1.716	1.716	2.043	2.043	2.152	2.152	3.410	3.410	4.012	4.012	4.340	4.340	4.669	4.669
21	1.693	1.693	2.007	2.007	2.111	2.111	3.350	3.350	3.897	3.897	4.213	4.213	4.528	4.528
23	1.669	1.669	1.970	1.970	2.071	2.071	3.232	3.232	3.783	3.783	4.085	4.085	4.387	4.387
25	1.645	1.645	1.934	1.934	2.030	2.030	3.115	3.115	3.668	3.668	3.957	3.957	4.246	4.246
27	1.621	1.621	1.897	1.897	1.989	1.989	2.997	2.997	3.554	3.554	3.830	3.830	4.106	4.106
	FROST REGION													

R22 MODELS
(HEATPUMP)

MODEL : MCM 020ER / MLC 018CR
COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.743	3.699	5.397	3.404	5.050	3.110	4.703	2.816	4.356	2.522	3.940	2.168
	16	5.969	3.449	5.599	3.179	5.228	2.910	4.858	2.640	4.488	2.371	4.044	2.047
24	16	5.969	4.359	5.599	4.090	5.228	3.820	4.858	3.551	4.488	3.281	4.044	2.958
	17	6.194	4.109	5.800	3.864	5.407	3.620	5.014	3.375	4.621	3.130	4.149	2.837
	18	6.419	3.859	6.002	3.639	5.586	3.419	5.169	3.199	4.753	2.979	4.253	2.715
	19	6.644	3.609	6.204	3.414	5.765	3.219	5.325	3.023	4.885	2.828	4.358	2.594
	20	6.870	3.358	6.417	3.183	5.963	3.008	5.510	2.833	5.056	2.658	4.512	2.448
28	18	6.419	4.770	6.002	4.550	5.586	4.330	5.169	4.110	4.753	3.890	4.253	3.626
	19	6.644	4.520	6.204	4.324	5.765	4.129	5.325	3.934	4.885	3.739	4.358	3.505
	20	6.870	4.269	6.417	4.094	5.963	3.919	5.510	3.744	5.056	3.569	4.512	3.359
	21	7.097	4.018	6.636	3.860	6.175	3.702	5.714	3.544	5.253	3.386	4.700	3.196
	22	7.324	3.767	6.855	3.626	6.387	3.485	5.918	3.344	5.450	3.202	4.888	3.033
	23	7.551	3.516	7.075	3.392	6.599	3.268	6.123	3.143	5.647	3.019	5.075	2.871
	24	7.778	3.265	7.294	3.158	6.811	3.050	6.327	2.943	5.844	2.836	5.263	2.708
30	20	6.870	4.724	6.417	4.549	5.963	4.374	5.510	4.199	5.056	4.024	4.512	3.814
	21	7.097	4.473	6.636	4.315	6.175	4.157	5.714	3.999	5.253	3.841	4.700	3.651
	22	7.324	4.222	6.855	4.081	6.387	3.940	5.918	3.799	5.450	3.658	4.888	3.489
	23	7.551	3.971	7.075	3.847	6.599	3.723	6.123	3.599	5.647	3.475	5.075	3.326
	24	7.778	3.720	7.294	3.613	6.811	3.506	6.327	3.399	5.844	3.292	5.263	3.163

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	2.597	2.597	3.151	3.151	3.335	3.335	5.366	5.366	6.474	6.474	7.028	7.028	7.582	7.582
17	2.556	2.556	3.094	3.094	3.274	3.274	5.299	5.299	6.299	6.299	6.833	6.833	7.367	7.367
19	2.516	2.516	3.038	3.038	3.213	3.213	5.231	5.231	6.124	6.124	6.637	6.637	7.151	7.151
21	2.475	2.475	2.982	2.982	3.151	3.151	5.164	5.164	5.948	5.948	6.442	6.442	6.935	6.935
23	2.447	2.447	2.929	2.929	3.090	3.090	4.958	4.958	5.773	5.773	6.246	6.246	6.720	6.720
25	2.419	2.419	2.876	2.876	3.028	3.028	4.751	4.751	5.597	5.597	6.051	6.051	6.504	6.504
27	2.390	2.390	2.823	2.823	2.967	2.967	4.545	4.545	5.422	5.422	5.855	5.855	6.289	6.289
	FROST REGION													

R22 MODELS
(HEATPUMP)

MODEL : MCM 020ER / MLC 020CR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.850	3.645	5.531	3.384	5.213	3.123	4.894	2.862	4.575	2.602	4.193	2.288
	16	6.081	3.339	5.746	3.114	5.410	2.889	5.074	2.664	4.738	2.439	4.335	2.169
24	16	6.081	4.310	5.746	4.085	5.410	3.860	5.074	3.635	4.738	3.410	4.335	3.140
	17	6.313	4.004	5.960	3.814	5.607	3.625	5.254	3.436	4.900	3.247	4.477	3.020
	18	6.544	3.697	6.174	3.544	5.804	3.391	5.433	3.238	5.063	3.085	4.619	2.901
	19	6.776	3.391	6.388	3.274	6.001	3.157	5.613	3.039	5.226	2.922	4.761	2.781
	20	7.008	3.084	6.605	2.993	6.202	2.902	5.800	2.811	5.397	2.720	4.914	2.610
28	18	6.544	4.668	6.174	4.515	5.804	4.362	5.433	4.209	5.063	4.055	4.619	3.872
	19	6.776	4.362	6.388	4.245	6.001	4.127	5.613	4.010	5.226	3.893	4.761	3.752
	20	7.008	4.054	6.605	3.963	6.202	3.872	5.800	3.781	5.397	3.690	4.914	3.581
	21	7.240	3.746	6.823	3.675	6.407	3.604	5.990	3.532	5.574	3.461	5.074	3.376
	22	7.472	3.438	7.041	3.386	6.611	3.335	6.181	3.284	5.750	3.232	5.234	3.170
	23	7.703	3.130	7.259	3.098	6.815	3.066	6.371	3.035	5.927	3.003	5.394	2.965
	24	7.935	2.822	7.477	2.810	7.020	2.798	6.562	2.786	6.104	2.774	5.554	2.759
30	20	7.008	4.540	6.605	4.449	6.202	4.358	5.800	4.267	5.397	4.176	4.914	4.067
	21	7.240	4.232	6.823	4.160	6.407	4.089	5.990	4.018	5.574	3.947	5.074	3.861
	22	7.472	3.923	7.041	3.872	6.611	3.820	6.181	3.769	5.750	3.717	5.234	3.656
	23	7.703	3.615	7.259	3.583	6.815	3.552	6.371	3.520	5.927	3.488	5.394	3.450
	24	7.935	3.307	7.477	3.295	7.020	3.283	6.562	3.271	6.104	3.259	5.554	3.245

HEATING MODE

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	2.506	2.506	3.124	3.124	3.330	3.330	5.597	5.597	6.834	6.834	7.452	7.452	8.071	8.071
17	2.446	2.446	3.062	3.062	3.267	3.267	5.499	5.499	6.648	6.648	7.245	7.245	7.841	7.841
19	2.386	2.386	2.999	2.999	3.204	3.204	5.401	5.401	6.462	6.462	7.037	7.037	7.612	7.612
21	2.326	2.326	2.937	2.937	3.140	3.140	5.303	5.303	6.276	6.276	6.829	6.829	7.382	7.382
23	2.319	2.319	2.887	2.887	3.077	3.077	5.113	5.113	6.089	6.089	6.621	6.621	7.153	7.153
25	2.311	2.311	2.838	2.838	3.014	3.014	4.924	4.924	5.903	5.903	6.413	6.413	6.923	6.923
27	2.304	2.304	2.789	2.789	2.951	2.951	4.734	4.734	5.717	5.717	6.205	6.205	6.694	6.694
	FROST REGION													

R22 MODELS
(HEATPUMP)

MODEL : MCM 025ER / MLC 025CR
COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.548	5.116	7.125	4.731	6.702	4.345	6.278	3.960	5.855	3.574	5.347	3.112
	16	7.724	4.701	7.311	4.360	6.897	4.019	6.484	3.678	6.070	3.336	5.573	2.927
24	16	7.724	5.768	7.311	5.427	6.897	5.086	6.484	4.745	6.070	4.404	5.573	3.994
	17	7.900	5.353	7.497	5.056	7.093	4.759	6.689	4.462	6.285	4.166	5.800	3.810
	18	8.077	4.937	7.682	4.685	7.288	4.433	6.894	4.180	6.499	3.928	6.026	3.625
	19	8.253	4.522	7.868	4.314	7.483	4.106	7.099	3.898	6.714	3.690	6.252	3.441
	20	8.428	4.106	8.044	3.938	7.660	3.769	7.275	3.601	6.891	3.433	6.431	3.231
28	18	8.077	6.004	7.682	5.752	7.288	5.500	6.894	5.247	6.499	4.995	6.026	4.692
	19	8.253	5.589	7.868	5.381	7.483	5.173	7.099	4.965	6.714	4.757	6.252	4.508
	20	8.428	5.173	8.044	5.005	7.660	4.837	7.275	4.668	6.891	4.500	6.431	4.298
	21	8.602	4.757	8.212	4.625	7.823	4.493	7.434	4.362	7.044	4.230	6.577	4.072
	22	8.776	4.340	8.381	4.245	7.986	4.150	7.592	4.055	7.197	3.960	6.723	3.845
	23	8.950	3.924	8.550	3.865	8.150	3.807	7.750	3.748	7.350	3.689	6.869	3.619
	24	9.125	3.508	8.719	3.486	8.313	3.463	7.908	3.441	7.502	3.419	7.015	3.393
30	20	8.428	5.707	8.044	5.538	7.660	5.370	7.275	5.202	6.891	5.034	6.431	4.832
	21	8.602	5.290	8.212	5.159	7.823	5.027	7.434	4.895	7.044	4.763	6.577	4.605
	22	8.776	4.874	8.381	4.779	7.986	4.684	7.592	4.588	7.197	4.493	6.723	4.379
	23	8.950	4.458	8.550	4.399	8.150	4.340	7.750	4.282	7.350	4.223	6.869	4.153
	24	9.125	4.041	8.719	4.019	8.313	3.997	7.908	3.975	7.502	3.953	7.015	3.926

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.228	3.228	4.000	4.000	4.257	4.257	7.088	7.088	8.633	8.633	9.405	9.405	10.177	10.177
17	3.157	3.157	3.922	3.922	4.177	4.177	7.052	7.052	8.398	8.398	9.143	9.143	9.887	9.887
19	3.086	3.086	3.844	3.844	4.097	4.097	7.015	7.015	8.163	8.163	8.880	8.880	9.598	9.598
21	3.015	3.015	3.766	3.766	4.016	4.016	6.978	6.978	7.928	7.928	8.618	8.618	9.309	9.309
23	2.999	2.999	3.702	3.702	3.936	3.936	6.647	6.647	7.693	7.693	8.356	8.356	9.019	9.019
25	2.984	2.984	3.638	3.638	3.856	3.856	6.315	6.315	7.458	7.458	8.094	8.094	8.730	8.730
27	2.968	2.968	3.574	3.574	3.775	3.775	5.984	5.984	7.223	7.223	7.832	7.832	8.440	8.440
	FROST REGION													

R22 MODELS
(HEATPUMP)

MODEL : MCM 028ER / MLC 028CR
COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.627	5.602	8.148	5.215	7.669	4.828	7.190	4.441	6.711	4.054	6.136	3.589
	16	9.034	5.190	8.509	4.841	7.985	4.492	7.460	4.142	6.935	3.793	6.306	3.374
24	16	9.034	6.458	8.509	6.109	7.985	5.760	7.460	5.410	6.935	5.061	6.306	4.642
	17	9.442	6.047	8.871	5.735	8.301	5.423	7.730	5.112	7.160	4.800	6.475	4.426
	18	9.849	5.635	9.233	5.361	8.617	5.087	8.001	4.813	7.385	4.540	6.645	4.211
	19	10.256	5.223	9.595	4.987	8.933	4.751	8.271	4.515	7.609	4.279	6.815	3.996
	20	10.665	4.811	9.971	4.607	9.276	4.403	8.581	4.200	7.887	3.996	7.053	3.751
28	18	9.849	6.903	9.233	6.629	8.617	6.355	8.001	6.081	7.385	5.807	6.645	5.479
	19	10.256	6.491	9.595	6.255	8.933	6.019	8.271	5.783	7.609	5.547	6.815	5.264
	20	10.665	6.078	9.971	5.875	9.276	5.671	8.581	5.467	7.887	5.264	7.053	5.019
	21	11.075	5.666	10.356	5.491	9.637	5.315	8.918	5.140	8.199	4.965	7.336	4.755
	22	11.485	5.253	10.742	5.106	9.999	4.960	9.255	4.813	8.512	4.667	7.620	4.491
	23	11.895	4.840	11.128	4.722	10.360	4.604	9.592	4.486	8.824	4.368	7.903	4.226
	24	12.305	4.427	11.513	4.338	10.721	4.248	9.929	4.159	9.137	4.069	8.186	3.962
30	20	10.665	6.712	9.971	6.509	9.276	6.305	8.581	6.101	7.887	5.897	7.053	5.653
	21	11.075	6.300	10.356	6.124	9.637	5.949	8.918	5.774	8.199	5.599	7.336	5.389
	22	11.485	5.887	10.742	5.740	9.999	5.594	9.255	5.447	8.512	5.300	7.620	5.124
	23	11.895	5.474	11.128	5.356	10.360	5.238	9.592	5.120	8.824	5.002	7.903	4.860
	24	12.305	5.061	11.513	4.972	10.721	4.882	9.929	4.793	9.137	4.703	8.186	4.596

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.707	3.707	4.621	4.621	4.926	4.926	8.276	8.276	10.103	10.103	11.017	11.017	11.931	11.931
17	3.619	3.619	4.529	4.529	4.832	4.832	8.122	8.122	9.828	9.828	10.710	10.710	11.591	11.591
19	3.531	3.531	4.437	4.437	4.739	4.739	7.969	7.969	9.553	9.553	10.402	10.402	11.252	11.252
21	3.443	3.443	4.344	4.344	4.645	4.645	7.816	7.816	9.278	9.278	10.095	10.095	10.913	10.913
23	3.431	3.431	4.271	4.271	4.552	4.552	7.544	7.544	9.003	9.003	9.788	9.788	10.573	10.573
25	3.420	3.420	4.198	4.198	4.458	4.458	7.272	7.272	8.727	8.727	9.481	9.481	10.234	10.234
27	3.409	3.409	4.125	4.125	4.364	4.364	7.000	7.000	8.452	8.452	9.173	9.173	9.895	9.895
	FROST REGION													

R22 MODELS
(HEATPUMP)

MODEL : MCM 028ER / MLC 030CR
COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.897	5.879	8.367	5.441	7.837	5.003	7.307	4.564	6.778	4.126	6.142	3.600
	16	9.245	5.407	8.681	5.018	8.117	4.629	7.553	4.240	6.989	3.851	6.312	3.385
24	16	9.245	6.675	8.681	6.286	8.117	5.897	7.553	5.508	6.989	5.119	6.312	4.653
	17	9.594	6.203	8.995	5.863	8.397	5.524	7.798	5.184	7.200	4.844	6.482	4.437
	18	9.942	5.731	9.309	5.441	8.677	5.150	8.044	4.860	7.411	4.570	6.652	4.221
	19	10.290	5.259	9.623	5.018	8.956	4.777	8.289	4.536	7.622	4.295	6.822	4.006
	20	10.640	4.786	9.952	4.589	9.263	4.392	8.575	4.195	7.886	3.997	7.060	3.761
28	18	9.942	6.999	9.309	6.708	8.677	6.418	8.044	6.128	7.411	5.837	6.652	5.489
	19	10.290	6.527	9.623	6.286	8.956	6.045	8.289	5.804	7.622	5.563	6.822	5.273
	20	10.640	6.054	9.952	5.857	9.263	5.660	8.575	5.462	7.886	5.265	7.060	5.028
	21	10.992	5.581	10.290	5.424	9.588	5.267	8.887	5.109	8.185	4.952	7.344	4.764
	22	11.343	5.108	10.628	4.991	9.914	4.874	9.199	4.757	8.485	4.639	7.627	4.499
	23	11.694	4.635	10.966	4.558	10.239	4.481	9.511	4.404	8.784	4.326	7.911	4.234
	24	12.045	4.162	11.304	4.125	10.564	4.088	9.823	4.051	9.083	4.014	8.195	3.969
30	20	10.640	6.688	9.952	6.491	9.263	6.293	8.575	6.096	7.886	5.899	7.060	5.662
	21	10.992	6.215	10.290	6.058	9.588	5.901	8.887	5.743	8.185	5.586	7.344	5.397
	22	11.343	5.742	10.628	5.625	9.914	5.508	9.199	5.390	8.485	5.273	7.627	5.133
	23	11.694	5.269	10.966	5.192	10.239	5.115	9.511	5.037	8.784	4.960	7.911	4.868
	24	12.045	4.796	11.304	4.759	10.564	4.722	9.823	4.685	9.083	4.648	8.195	4.603

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.707	3.707	4.621	4.621	4.926	4.926	8.276	8.276	10.103	10.103	11.017	11.017	11.931	11.931
17	3.619	3.619	4.529	4.529	4.832	4.832	8.122	8.122	9.828	9.828	10.710	10.710	11.591	11.591
19	3.531	3.531	4.437	4.437	4.739	4.739	7.969	7.969	9.553	9.553	10.402	10.402	11.252	11.252
21	3.443	3.443	4.344	4.344	4.645	4.645	7.816	7.816	9.278	9.278	10.095	10.095	10.913	10.913
23	3.431	3.431	4.271	4.271	4.552	4.552	7.544	7.544	9.003	9.003	9.788	9.788	10.573	10.573
25	3.420	3.420	4.198	4.198	4.458	4.458	7.272	7.272	8.727	8.727	9.481	9.481	10.234	10.234
27	3.409	3.409	4.125	4.125	4.364	4.364	7.000	7.000	8.452	8.452	9.173	9.173	9.895	9.895
	FROST REGION													

R410A MODELS
(COOLING ONLY)

MODEL : M5CM 015E / M5LC 015C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	4.362	2.573	3.980	2.190	3.593	1.802	3.206	1.414	2.819	1.027	2.354	0.562
	16	4.440	2.359	4.074	2.005	3.706	1.648	3.338	1.292	2.970	0.936	2.528	0.508
24	16	4.440	3.385	4.074	3.031	3.706	2.675	3.338	2.318	2.970	1.962	2.528	1.534
	17	4.517	3.171	4.168	2.846	3.819	2.521	3.470	2.196	3.121	1.871	2.702	1.481
	18	4.597	2.960	4.266	2.665	3.935	2.370	3.604	2.075	3.273	1.781	2.876	1.427
	19	4.679	2.753	4.380	2.515	4.082	2.276	3.783	2.038	3.450	1.736	3.050	1.373
	20	4.752	2.529	4.437	2.257	4.122	1.986	3.807	1.714	3.492	1.443	3.114	1.117
28	18	4.597	3.986	4.266	3.691	3.935	3.396	3.604	3.102	3.273	2.807	2.876	2.453
	19	4.679	3.779	4.380	3.541	4.082	3.302	3.783	3.064	3.450	2.762	3.050	2.400
	20	4.752	3.555	4.437	3.283	4.122	3.012	3.807	2.740	3.492	2.469	3.114	2.143
	21	4.827	3.336	4.510	3.057	4.193	2.778	3.876	2.500	3.559	2.221	3.178	1.887
	22	4.903	3.116	4.583	2.831	4.264	2.545	3.945	2.259	3.625	1.974	3.242	1.631
	23	4.978	2.897	4.657	2.604	4.335	2.312	4.014	2.019	3.692	1.726	3.306	1.374
	24	5.054	2.678	4.730	2.378	4.406	2.078	4.082	1.778	3.759	1.478	3.370	1.118
30	20	4.752	4.068	4.437	3.796	4.122	3.525	3.807	3.254	3.492	2.982	3.114	2.656
	21	4.827	3.849	4.510	3.570	4.193	3.292	3.876	3.013	3.559	2.734	3.178	2.400
	22	4.903	3.630	4.583	3.344	4.264	3.058	3.945	2.772	3.625	2.487	3.242	2.144
	23	4.978	3.410	4.657	3.117	4.335	2.825	4.014	2.532	3.692	2.239	3.306	1.887
	24	5.054	3.191	4.730	2.891	4.406	2.591	4.082	2.291	3.759	1.991	3.370	1.631

MODEL : M5CM 020E / M5LC 020C (1 PHASE)

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.715	3.788	5.176	3.247	4.622	2.692	4.068	2.137	3.514	1.581	2.849	0.915
	16	5.842	3.492	5.34	2.99	4.83	2.481	4.32	1.971	3.811	1.462	3.199	0.85
24	16	5.842	4.601	5.34	4.099	4.83	3.59	4.32	3.08	3.811	2.57	3.199	1.959
	17	5.968	4.306	5.503	3.842	5.038	3.378	4.573	2.914	4.107	2.451	3.549	1.894
	18	6.102	4.017	5.678	3.596	5.255	3.176	4.831	2.755	4.408	2.334	3.899	1.829
	19	6.238	3.737	5.868	3.403	5.498	3.068	5.128	2.733	4.729	2.293	4.249	1.764
	20	6.36	3.431	5.971	3.051	5.582	2.671	5.194	2.29	4.805	1.91	4.339	1.454
28	18	6.102	5.126	5.678	4.705	5.255	4.285	4.831	3.864	4.408	3.443	3.899	2.938
	19	6.238	4.846	5.868	4.512	5.498	4.177	5.128	3.842	4.729	3.402	4.249	2.873
	20	6.36	4.54	5.971	4.16	5.582	3.78	5.194	3.399	4.805	3.019	4.339	2.563
	21	6.484	4.243	6.088	3.86	5.693	3.477	5.298	3.094	4.902	2.712	4.428	2.252
	22	6.608	3.945	6.206	3.56	5.804	3.175	5.402	2.789	4.999	2.404	4.517	1.942
	23	6.732	3.648	6.323	3.26	5.914	2.872	5.505	2.484	5.097	2.097	4.606	1.631
	24	6.856	3.35	6.44	2.96	6.025	2.57	5.609	2.18	5.194	1.789	4.695	1.321
30	20	6.36	5.095	5.971	4.714	5.582	4.334	5.194	3.954	4.805	3.574	4.339	3.117
	21	6.484	4.797	6.088	4.414	5.693	4.032	5.298	3.649	4.902	3.266	4.428	2.807
	22	6.608	4.5	6.206	4.115	5.804	3.729	5.402	3.344	4.999	2.959	4.517	2.496
	23	6.732	4.202	6.323	3.815	5.914	3.427	5.505	3.039	5.097	2.651	4.606	2.186
	24	6.856	3.905	6.44	3.515	6.025	3.124	5.609	2.734	5.194	2.344	4.695	1.875

R410A MODELS
(COOLING ONLY)

MODEL : M5CM 020E / M5LC 020C (3 PHASE)

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.670	3.743	5.205	3.276	4.741	2.812	4.278	2.347	3.815	1.883	3.258	1.325
	16	5.833	3.471	5.392	3.044	4.951	2.617	4.511	2.190	4.071	1.763	3.543	1.251
24	16	5.833	4.580	5.392	4.153	4.951	3.726	4.511	3.299	4.071	2.872	3.543	2.360
	17	5.995	4.309	5.578	3.920	5.161	3.531	4.744	3.142	4.327	2.753	3.827	2.286
	18	6.157	4.037	5.764	3.686	5.370	3.335	4.977	2.984	4.584	2.633	4.111	2.212
	19	6.324	3.766	5.984	3.463	5.644	3.159	5.304	2.855	4.891	2.529	4.396	2.137
	20	6.473	3.482	6.091	3.155	5.710	2.828	5.328	2.501	4.946	2.174	4.488	1.782
28	18	6.157	5.146	5.764	4.795	5.370	4.444	4.977	4.093	4.584	3.742	4.111	3.321
	19	6.324	4.875	5.984	4.572	5.644	4.268	5.304	3.964	4.891	3.638	4.396	3.246
	20	6.473	4.591	6.091	4.264	5.710	3.937	5.328	3.610	4.946	3.283	4.488	2.891
	21	6.627	4.308	6.234	3.967	5.840	3.627	5.446	3.286	5.053	2.945	4.580	2.536
	22	6.782	4.025	6.376	3.671	5.971	3.316	5.565	2.961	5.159	2.607	4.673	2.181
	23	6.936	3.743	6.519	3.374	6.101	3.005	5.684	2.637	5.266	2.268	4.765	1.826
	24	7.091	3.460	6.661	3.077	6.232	2.695	5.802	2.312	5.373	1.930	4.857	1.471
30	20	6.473	5.145	6.091	4.818	5.710	4.492	5.328	4.165	4.946	3.838	4.488	3.446
	21	6.627	4.863	6.234	4.522	5.840	4.181	5.446	3.840	5.053	3.499	4.580	3.091
	22	6.782	4.580	6.376	4.225	5.971	3.870	5.565	3.516	5.159	3.161	4.673	2.735
	23	6.936	4.297	6.519	3.929	6.101	3.560	5.684	3.191	5.266	2.823	4.765	2.380
	24	7.091	4.014	6.661	3.632	6.232	3.249	5.802	2.867	5.373	2.484	4.857	2.025

MODEL : M5CM 025E / M5LC 025C (1 PHASE)

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.924	4.060	5.602	3.715	5.279	3.405	4.956	3.096	4.633	2.787	4.246	2.416
	16	6.138	3.823	5.810	3.519	5.481	3.233	5.153	2.947	4.824	2.662	4.430	2.319
24	16	6.138	4.870	5.810	4.566	5.481	4.281	5.153	3.995	4.824	3.710	4.430	3.367
	17	6.352	4.633	6.018	4.371	5.684	4.109	5.349	3.847	5.015	3.585	4.614	3.270
	18	6.567	4.378	6.227	4.146	5.886	3.915	5.546	3.683	5.206	3.452	4.798	3.174
	19	6.789	4.112	6.479	3.854	6.170	3.595	5.860	3.337	5.461	3.219	4.981	3.077
	20	6.993	3.855	6.626	3.616	6.260	3.378	5.893	3.140	5.526	2.901	5.086	2.615
28	18	6.567	5.426	6.227	5.194	5.886	4.963	5.546	4.731	5.206	4.499	4.798	4.221
	19	6.789	5.160	6.479	4.901	6.170	4.643	5.860	4.385	5.461	4.267	4.981	4.125
	20	6.993	4.903	6.626	4.664	6.260	4.426	5.893	4.187	5.526	3.949	5.086	3.663
	21	7.205	4.634	6.817	4.359	6.430	4.083	6.043	3.807	5.655	3.532	5.191	3.201
	22	7.416	4.366	7.008	4.053	6.600	3.740	6.193	3.427	5.785	3.114	5.295	2.739
	23	7.628	4.098	7.199	3.748	6.771	3.397	6.342	3.047	5.914	2.697	5.400	2.277
	24	7.839	3.829	7.390	3.442	6.941	3.055	6.492	2.667	6.043	2.280	5.504	1.815
30	20	6.993	5.427	6.626	5.188	6.260	4.950	5.893	4.711	5.526	4.473	5.086	4.187
	21	7.205	5.158	6.817	4.883	6.430	4.607	6.043	4.331	5.655	4.056	5.191	3.725
	22	7.416	4.890	7.008	4.577	6.600	4.264	6.193	3.951	5.785	3.638	5.295	3.263
	23	7.628	4.622	7.199	4.271	6.771	3.921	6.342	3.571	5.914	3.221	5.400	2.801
	24	7.839	4.353	7.390	3.966	6.941	3.578	6.492	3.191	6.043	2.804	5.504	2.339

R410A MODELS
(COOLING ONLY)

MODEL : M5CM 025E / M5LC 025C (3 PHASE)

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.763	4.405	6.436	4.061	6.057	3.765	5.677	3.469	5.298	3.173	4.842	2.818
	16	6.992	4.182	6.649	3.879	6.279	3.600	5.910	3.321	5.540	3.042	5.097	2.708
24	16	6.992	5.341	6.649	5.038	6.279	4.759	5.910	4.480	5.540	4.201	5.097	3.867
	17	7.221	5.117	6.861	4.855	6.502	4.594	6.142	4.332	5.783	4.071	5.351	3.757
	18	7.474	4.871	7.115	4.635	6.755	4.400	6.396	4.164	6.037	3.929	5.606	3.646
	19	7.730	4.623	7.386	4.406	7.042	4.188	6.699	3.971	6.318	3.773	5.860	3.536
	20	7.975	4.363	7.592	4.103	7.209	3.842	6.826	3.582	6.443	3.322	5.984	3.009
28	18	7.474	6.030	7.115	5.794	6.755	5.559	6.396	5.323	6.037	5.088	5.606	4.805
	19	7.730	5.782	7.386	5.565	7.042	5.347	6.699	5.130	6.318	4.932	5.860	4.695
	20	7.975	5.522	7.592	5.262	7.209	5.001	6.826	4.741	6.443	4.481	5.984	4.168
	21	8.223	5.260	7.816	4.949	7.409	4.638	7.002	4.326	6.595	4.015	6.107	3.641
	22	8.471	4.999	8.040	4.636	7.609	4.274	7.178	3.912	6.747	3.549	6.230	3.115
	23	8.719	4.737	8.264	4.324	7.809	3.910	7.354	3.497	6.899	3.084	6.353	2.588
	24	8.967	4.476	8.488	4.011	8.009	3.547	7.530	3.082	7.051	2.618	6.476	2.061
30	20	7.975	6.101	7.592	5.841	7.209	5.581	6.826	5.321	6.443	5.060	5.984	4.748
	21	8.223	5.840	7.816	5.529	7.409	5.217	7.002	4.906	6.595	4.595	6.107	4.221
	22	8.471	5.578	8.040	5.216	7.609	4.854	7.178	4.491	6.747	4.129	6.230	3.694
	23	8.719	5.317	8.264	4.903	7.809	4.490	7.354	4.077	6.899	3.663	6.353	3.167
	24	8.967	5.055	8.488	4.591	8.009	4.126	7.530	3.662	7.051	3.198	6.476	2.640

MODEL : M5CM 028E / M5LC 028C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.117	5.375	7.585	4.821	6.954	4.289	6.323	3.757	5.693	3.225	4.936	2.587
	16	8.318	5.027	7.780	4.527	7.192	4.039	6.605	3.550	6.018	3.061	5.314	2.475
24	16	8.318	6.369	7.780	5.869	7.192	5.381	6.605	4.892	6.018	4.404	5.314	3.817
	17	8.518	6.022	7.975	5.576	7.431	5.131	6.888	4.685	6.344	4.240	5.692	3.705
	18	8.764	5.664	8.246	5.265	7.728	4.867	7.210	4.469	6.691	4.071	6.070	3.593
	19	9.015	5.298	8.550	4.910	8.085	4.521	7.620	4.133	7.087	3.837	6.448	3.481
	20	9.246	4.931	8.734	4.549	8.222	4.167	7.710	3.785	7.198	3.403	6.583	2.944
28	18	8.764	7.006	8.246	6.607	7.728	6.209	7.210	5.811	6.691	5.413	6.070	4.935
	19	9.015	6.640	8.550	6.252	8.085	5.864	7.620	5.475	7.087	5.179	6.448	4.823
	20	9.246	6.273	8.734	5.891	8.222	5.509	7.710	5.127	7.198	4.745	6.583	4.286
	21	9.482	5.899	8.951	5.486	8.419	5.073	7.888	4.659	7.356	4.246	6.719	3.749
	22	9.719	5.526	9.168	5.081	8.617	4.636	8.066	4.191	7.515	3.746	6.854	3.213
	23	9.956	5.152	9.385	4.676	8.815	4.199	8.244	3.723	7.674	3.247	6.989	2.676
	24	10.192	4.778	9.602	4.270	9.012	3.763	8.423	3.256	7.833	2.748	7.125	2.139
30	20	9.246	6.944	8.734	6.562	8.222	6.180	7.710	5.798	7.198	5.416	6.583	4.957
	21	9.482	6.571	8.951	6.157	8.419	5.744	7.888	5.330	7.356	4.917	6.719	4.420
	22	9.719	6.197	9.168	5.752	8.617	5.307	8.066	4.862	7.515	4.417	6.854	3.884
	23	9.956	5.823	9.385	5.347	8.815	4.870	8.244	4.394	7.674	3.918	6.989	3.347
	24	10.192	5.449	9.602	4.941	9.012	4.434	8.423	3.927	7.833	3.419	7.125	2.810

R410A MODELS
(COOLING ONLY)

MODEL : M5CM 028E / M5LC 035C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.685	5.958	8.373	5.617	8.022	5.364	7.670	5.111	7.318	4.858	6.897	4.555
	16	9.015	5.683	8.659	5.401	8.283	5.162	7.907	4.923	7.531	4.684	7.079	4.398
24	16	9.015	7.025	8.659	6.743	8.283	6.504	7.907	6.265	7.531	6.026	7.079	5.740
	17	9.345	6.751	8.944	6.526	8.544	6.302	8.143	6.077	7.743	5.852	7.262	5.583
	18	9.693	6.435	9.261	6.241	8.828	6.047	8.396	5.853	7.964	5.659	7.445	5.426
	19	10.051	6.097	9.634	5.821	9.218	5.546	8.801	5.271	8.268	5.270	7.628	5.269
	20	10.389	5.781	9.889	5.539	9.389	5.296	8.888	5.053	8.388	4.810	7.788	4.519
28	18	9.693	7.777	9.261	7.583	8.828	7.389	8.396	7.195	7.964	7.001	7.445	6.768
	19	10.051	7.439	9.634	7.163	9.218	6.888	8.801	6.613	8.268	6.612	7.628	6.611
	20	10.389	7.123	9.889	6.881	9.389	6.638	8.888	6.395	8.388	6.152	7.788	5.861
	21	10.737	6.786	10.200	6.463	9.664	6.141	9.128	5.819	8.592	5.497	7.948	5.110
	22	11.084	6.448	10.512	6.046	9.940	5.645	9.367	5.243	8.795	4.842	8.108	4.360
	23	11.432	6.110	10.823	5.629	10.215	5.148	9.607	4.667	8.998	4.186	8.269	3.609
	24	11.779	5.772	11.135	5.212	10.491	4.652	9.846	4.091	9.202	3.531	8.429	2.858
30	20	10.389	7.794	9.889	7.552	9.389	7.309	8.888	7.066	8.388	6.823	7.788	6.532
	21	10.737	7.457	10.200	7.135	9.664	6.812	9.128	6.490	8.592	6.168	7.948	5.781
	22	11.084	7.119	10.512	6.717	9.940	6.316	9.367	5.914	8.795	5.513	8.108	5.031
	23	11.432	6.781	10.823	6.300	10.215	5.819	9.607	5.338	8.998	4.857	8.269	4.280
	24	11.779	6.444	11.135	5.883	10.491	5.323	9.846	4.762	9.202	4.202	8.429	3.529

R410A MODELS
(HEATPUMP)

MODEL : M5CM 015ER / M5LC 015CR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	4.362	2.573	3.980	2.190	3.593	1.802	3.206	1.414	2.819	1.027	2.354	0.562
	16	4.440	2.359	4.074	2.005	3.706	1.648	3.338	1.292	2.970	0.936	2.528	0.508
24	16	4.440	3.385	4.074	3.031	3.706	2.675	3.338	2.318	2.970	1.962	2.528	1.534
	17	4.517	3.171	4.168	2.846	3.819	2.521	3.470	2.196	3.121	1.871	2.702	1.481
	18	4.597	2.960	4.266	2.665	3.935	2.370	3.604	2.075	3.273	1.781	2.876	1.427
	19	4.679	2.753	4.380	2.515	4.082	2.276	3.783	2.038	3.450	1.736	3.050	1.373
	20	4.752	2.529	4.437	2.257	4.122	1.986	3.807	1.714	3.492	1.443	3.114	1.117
28	18	4.597	3.986	4.266	3.691	3.935	3.396	3.604	3.102	3.273	2.807	2.876	2.453
	19	4.679	3.779	4.380	3.541	4.082	3.302	3.783	3.064	3.450	2.762	3.050	2.400
	20	4.752	3.555	4.437	3.283	4.122	3.012	3.807	2.740	3.492	2.469	3.114	2.143
	21	4.827	3.336	4.510	3.057	4.193	2.778	3.876	2.500	3.559	2.221	3.178	1.887
	22	4.903	3.116	4.583	2.831	4.264	2.545	3.945	2.259	3.625	1.974	3.242	1.631
	23	4.978	2.897	4.657	2.604	4.335	2.312	4.014	2.019	3.692	1.726	3.306	1.374
	24	5.054	2.678	4.730	2.378	4.406	2.078	4.082	1.778	3.759	1.478	3.370	1.118
30	20	4.752	4.068	4.437	3.796	4.122	3.525	3.807	3.254	3.492	2.982	3.114	2.656
	21	4.827	3.849	4.510	3.570	4.193	3.292	3.876	3.013	3.559	2.734	3.178	2.400
	22	4.903	3.630	4.583	3.344	4.264	3.058	3.945	2.772	3.625	2.487	3.242	2.144
	23	4.978	3.410	4.657	3.117	4.335	2.825	4.014	2.532	3.692	2.239	3.306	1.887
	24	5.054	3.191	4.730	2.891	4.406	2.591	4.082	2.291	3.759	1.991	3.370	1.631

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	2.091	2.091	2.366	2.366	2.458	2.458	3.469	3.469	4.020	4.020	4.296	4.296	4.571	4.571
17	2.036	2.036	2.334	2.334	2.405	2.405	3.465	3.465	3.974	3.974	4.251	4.251	4.527	4.527
19	1.981	1.981	2.302	2.302	2.352	2.352	3.460	3.460	3.927	3.927	4.205	4.205	4.484	4.484
21	1.926	1.926	2.252	2.252	2.299	2.299	3.418	3.418	3.881	3.881	4.160	4.160	4.440	4.440
23	1.871	1.871	2.183	2.183	2.245	2.245	3.338	3.338	3.835	3.835	4.115	4.115	4.396	4.396
25	1.817	1.817	2.114	2.114	2.192	2.192	3.257	3.257	3.789	3.789	4.070	4.070	4.352	4.352
27	1.762	1.762	2.045	2.045	2.139	2.139	3.177	3.177	3.742	3.742	4.025	4.025	4.308	4.308
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 020ER / M5LC 020CR (1 PHASE)

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.715	3.788	5.176	3.247	4.622	2.692	4.068	2.137	3.514	1.581	2.849	0.915
	16	5.842	3.492	5.340	2.990	4.830	2.481	4.320	1.971	3.811	1.462	3.199	0.850
24	16	5.842	4.601	5.340	4.099	4.830	3.590	4.320	3.080	3.811	2.570	3.199	1.959
	17	5.968	4.306	5.503	3.842	5.038	3.378	4.573	2.914	4.107	2.451	3.549	1.894
	18	6.102	4.017	5.678	3.596	5.255	3.176	4.831	2.755	4.408	2.334	3.899	1.829
	19	6.238	3.737	5.868	3.403	5.498	3.068	5.128	2.733	4.729	2.293	4.249	1.764
	20	6.360	3.431	5.971	3.051	5.582	2.671	5.194	2.290	4.805	1.910	4.339	1.454
28	18	6.102	5.126	5.678	4.705	5.255	4.285	4.831	3.864	4.408	3.443	3.899	2.938
	19	6.238	4.846	5.868	4.512	5.498	4.177	5.128	3.842	4.729	3.402	4.249	2.873
	20	6.360	4.540	5.971	4.160	5.582	3.780	5.194	3.399	4.805	3.019	4.339	2.563
	21	6.484	4.243	6.088	3.860	5.693	3.477	5.298	3.094	4.902	2.712	4.428	2.252
	22	6.608	3.945	6.206	3.560	5.804	3.175	5.402	2.789	4.999	2.404	4.517	1.942
	23	6.732	3.648	6.323	3.260	5.914	2.872	5.505	2.484	5.097	2.097	4.606	1.631
	24	6.856	3.350	6.440	2.960	6.025	2.570	5.609	2.180	5.194	1.789	4.695	1.321
30	20	6.360	5.095	5.971	4.714	5.582	4.334	5.194	3.954	4.805	3.574	4.339	3.117
	21	6.484	4.797	6.088	4.414	5.693	4.032	5.298	3.649	4.902	3.266	4.428	2.807
	22	6.608	4.500	6.206	4.115	5.804	3.729	5.402	3.344	4.999	2.959	4.517	2.496
	23	6.732	4.202	6.323	3.815	5.914	3.427	5.505	3.039	5.097	2.651	4.606	2.186
	24	6.856	3.905	6.440	3.515	6.025	3.124	5.609	2.734	5.194	2.344	4.695	1.875

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.278	3.278	3.710	3.710	3.854	3.854	5.438	5.438	6.302	6.302	6.735	6.735	7.167	7.167
17	3.192	3.192	3.680	3.680	3.770	3.770	5.432	5.432	6.228	6.228	6.662	6.662	7.096	7.096
19	3.106	3.106	3.649	3.649	3.686	3.686	5.425	5.425	6.154	6.154	6.589	6.589	7.025	7.025
21	3.020	3.020	3.573	3.573	3.603	3.603	5.358	5.358	6.080	6.080	6.517	6.517	6.954	6.954
23	2.934	2.934	3.450	3.450	3.519	3.519	5.229	5.229	6.005	6.005	6.444	6.444	6.883	6.883
25	2.848	2.848	3.327	3.327	3.435	3.435	5.101	5.101	5.931	5.931	6.371	6.371	6.812	6.812
27	2.762	2.762	3.204	3.204	3.352	3.352	4.973	4.973	5.857	5.857	6.299	6.299	6.741	6.741
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 020ER / M5LC 020CR (3 PHASE)

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.670	3.743	5.205	3.276	4.741	2.812	4.278	2.347	3.815	1.883	3.258	1.325
	16	5.833	3.471	5.392	3.044	4.951	2.617	4.511	2.190	4.071	1.763	3.543	1.251
24	16	5.833	4.580	5.392	4.153	4.951	3.726	4.511	3.299	4.071	2.872	3.543	2.360
	17	5.995	4.309	5.578	3.920	5.161	3.531	4.744	3.142	4.327	2.753	3.827	2.286
	18	6.157	4.037	5.764	3.686	5.370	3.335	4.977	2.984	4.584	2.633	4.111	2.212
	19	6.324	3.766	5.984	3.463	5.644	3.159	5.304	2.855	4.891	2.529	4.396	2.137
	20	6.473	3.482	6.091	3.155	5.710	2.828	5.328	2.501	4.946	2.174	4.488	1.782
28	18	6.157	5.146	5.764	4.795	5.370	4.444	4.977	4.093	4.584	3.742	4.111	3.321
	19	6.324	4.875	5.984	4.572	5.644	4.268	5.304	3.964	4.891	3.638	4.396	3.246
	20	6.473	4.591	6.091	4.264	5.710	3.937	5.328	3.610	4.946	3.283	4.488	2.891
	21	6.627	4.308	6.234	3.967	5.840	3.627	5.446	3.286	5.053	2.945	4.580	2.536
	22	6.782	4.025	6.376	3.671	5.971	3.316	5.565	2.961	5.159	2.607	4.673	2.181
	23	6.936	3.743	6.519	3.374	6.101	3.005	5.684	2.637	5.266	2.268	4.765	1.826
	24	7.091	3.460	6.661	3.077	6.232	2.695	5.802	2.312	5.373	1.930	4.857	1.471
30	20	6.473	5.145	6.091	4.818	5.710	4.492	5.328	4.165	4.946	3.838	4.488	3.446
	21	6.627	4.863	6.234	4.522	5.840	4.181	5.446	3.840	5.053	3.499	4.580	3.091
	22	6.782	4.580	6.376	4.225	5.971	3.870	5.565	3.516	5.159	3.161	4.673	2.735
	23	6.936	4.297	6.519	3.929	6.101	3.560	5.684	3.191	5.266	2.823	4.765	2.380
	24	7.091	4.014	6.661	3.632	6.232	3.249	5.802	2.867	5.373	2.484	4.857	2.025

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.326	3.326	3.764	3.764	3.910	3.910	5.518	5.518	6.394	6.394	6.833	6.833	7.271	7.271
17	3.238	3.238	3.712	3.712	3.823	3.823	5.511	5.511	6.306	6.306	6.745	6.745	7.183	7.183
19	3.151	3.151	3.660	3.660	3.735	3.735	5.504	5.504	6.218	6.218	6.656	6.656	7.094	7.094
21	3.064	3.064	3.578	3.578	3.648	3.648	5.428	5.428	6.130	6.130	6.568	6.568	7.006	7.006
23	2.977	2.977	3.465	3.465	3.561	3.561	5.282	5.282	6.042	6.042	6.480	6.480	6.918	6.918
25	2.890	2.890	3.353	3.353	3.473	3.473	5.136	5.136	5.954	5.954	6.392	6.392	6.829	6.829
27	2.803	2.803	3.240	3.240	3.386	3.386	4.991	4.991	5.866	5.866	6.303	6.303	6.741	6.741
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 025ER / M5LC 025CR (1 PHASE)

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.924	4.060	5.602	3.715	5.279	3.405	4.956	3.096	4.633	2.787	4.246	2.416
	16	6.138	3.823	5.810	3.519	5.481	3.233	5.153	2.947	4.824	2.662	4.430	2.319
24	16	6.138	4.870	5.810	4.566	5.481	4.281	5.153	3.995	4.824	3.710	4.430	3.367
	17	6.352	4.633	6.018	4.371	5.684	4.109	5.349	3.847	5.015	3.585	4.614	3.270
	18	6.567	4.378	6.227	4.146	5.886	3.915	5.546	3.683	5.206	3.452	4.798	3.174
	19	6.789	4.112	6.479	3.854	6.170	3.595	5.860	3.337	5.461	3.219	4.981	3.077
	20	6.993	3.855	6.626	3.616	6.260	3.378	5.893	3.140	5.526	2.901	5.086	2.615
28	18	6.567	5.426	6.227	5.194	5.886	4.963	5.546	4.731	5.206	4.499	4.798	4.221
	19	6.789	5.160	6.479	4.901	6.170	4.643	5.860	4.385	5.461	4.267	4.981	4.125
	20	6.993	4.903	6.626	4.664	6.260	4.426	5.893	4.187	5.526	3.949	5.086	3.663
	21	7.205	4.634	6.817	4.359	6.430	4.083	6.043	3.807	5.655	3.532	5.191	3.201
	22	7.416	4.366	7.008	4.053	6.600	3.740	6.193	3.427	5.785	3.114	5.295	2.739
	23	7.628	4.098	7.199	3.748	6.771	3.397	6.342	3.047	5.914	2.697	5.400	2.277
	24	7.839	3.829	7.390	3.442	6.941	3.055	6.492	2.667	6.043	2.280	5.504	1.815
30	20	6.993	5.427	6.626	5.188	6.260	4.950	5.893	4.711	5.526	4.473	5.086	4.187
	21	7.205	5.158	6.817	4.883	6.430	4.607	6.043	4.331	5.655	4.056	5.191	3.725
	22	7.416	4.890	7.008	4.577	6.600	4.264	6.193	3.951	5.785	3.638	5.295	3.263
	23	7.628	4.622	7.199	4.271	6.771	3.921	6.342	3.571	5.914	3.221	5.400	2.801
	24	7.839	4.353	7.390	3.966	6.941	3.578	6.492	3.191	6.043	2.804	5.504	2.339

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.898	3.898	4.412	4.412	4.583	4.583	6.467	6.467	7.495	7.495	8.009	8.009	8.523	8.523
17	3.796	3.796	4.347	4.347	4.488	4.488	6.459	6.459	7.431	7.431	7.950	7.950	8.470	8.470
19	3.694	3.694	4.282	4.282	4.393	4.393	6.452	6.452	7.367	7.367	7.892	7.892	8.417	8.417
21	3.591	3.591	4.190	4.190	4.298	4.298	6.387	6.387	7.304	7.304	7.834	7.834	8.364	8.364
23	3.489	3.489	4.071	4.071	4.204	4.204	6.264	6.264	7.240	7.240	7.776	7.776	8.312	8.312
25	3.387	3.387	3.951	3.951	4.109	4.109	6.142	6.142	7.176	7.176	7.718	7.718	8.259	8.259
27	3.285	3.285	3.832	3.832	4.014	4.014	6.019	6.019	7.113	7.113	7.659	7.659	8.206	8.206
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 025ER / M5LC 025CR (3 PHASE)

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.763	4.405	6.436	4.061	6.057	3.765	5.677	3.469	5.298	3.173	4.842	2.818
	16	6.992	4.182	6.649	3.879	6.279	3.600	5.910	3.321	5.540	3.042	5.097	2.708
24	16	6.992	5.341	6.649	5.038	6.279	4.759	5.910	4.480	5.540	4.201	5.097	3.867
	17	7.221	5.117	6.861	4.855	6.502	4.594	6.142	4.332	5.783	4.071	5.351	3.757
	18	7.474	4.871	7.115	4.635	6.755	4.400	6.396	4.164	6.037	3.929	5.606	3.646
	19	7.730	4.623	7.386	4.406	7.042	4.188	6.699	3.971	6.318	3.773	5.860	3.536
	20	7.975	4.363	7.592	4.103	7.209	3.842	6.826	3.582	6.443	3.322	5.984	3.009
28	18	7.474	6.030	7.115	5.794	6.755	5.559	6.396	5.323	6.037	5.088	5.606	4.805
	19	7.730	5.782	7.386	5.565	7.042	5.347	6.699	5.130	6.318	4.932	5.860	4.695
	20	7.975	5.522	7.592	5.262	7.209	5.001	6.826	4.741	6.443	4.481	5.984	4.168
	21	8.223	5.260	7.816	4.949	7.409	4.638	7.002	4.326	6.595	4.015	6.107	3.641
	22	8.471	4.999	8.040	4.636	7.609	4.274	7.178	3.912	6.747	3.549	6.230	3.115
	23	8.719	4.737	8.264	4.324	7.809	3.910	7.354	3.497	6.899	3.084	6.353	2.588
	24	8.967	4.476	8.488	4.011	8.009	3.547	7.530	3.082	7.051	2.618	6.476	2.061
30	20	7.975	6.101	7.592	5.841	7.209	5.581	6.826	5.321	6.443	5.060	5.984	4.748
	21	8.223	5.840	7.816	5.529	7.409	5.217	7.002	4.906	6.595	4.595	6.107	4.221
	22	8.471	5.578	8.040	5.216	7.609	4.854	7.178	4.491	6.747	4.129	6.230	3.694
	23	8.719	5.317	8.264	4.903	7.809	4.490	7.354	4.077	6.899	3.663	6.353	3.167
	24	8.967	5.055	8.488	4.591	8.009	4.126	7.530	3.662	7.051	3.198	6.476	2.640

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.110	4.110	4.652	4.652	4.833	4.833	6.820	6.820	7.904	7.904	8.446	8.446	8.987	8.987
17	4.003	4.003	4.538	4.538	4.724	4.724	6.812	6.812	7.790	7.790	8.331	8.331	8.872	8.872
19	3.895	3.895	4.424	4.424	4.615	4.615	6.804	6.804	7.676	7.676	8.216	8.216	8.756	8.756
21	3.787	3.787	4.315	4.315	4.506	4.506	6.706	6.706	7.562	7.562	8.102	8.102	8.641	8.641
23	3.679	3.679	4.210	4.210	4.397	4.397	6.520	6.520	7.448	7.448	7.987	7.987	8.525	8.525
25	3.572	3.572	4.105	4.105	4.288	4.288	6.334	6.334	7.335	7.335	7.872	7.872	8.410	8.410
27	3.464	3.464	4.001	4.001	4.180	4.180	6.147	6.147	7.221	7.221	7.758	7.758	8.294	8.294
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 028ER / M5LC 028CR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.117	5.375	7.585	4.821	6.954	4.289	6.323	3.757	5.693	3.225	4.936	2.587
	16	8.318	5.027	7.780	4.527	7.192	4.039	6.605	3.550	6.018	3.061	5.314	2.475
24	16	8.318	6.369	7.780	5.869	7.192	5.381	6.605	4.892	6.018	4.404	5.314	3.817
	17	8.518	6.022	7.975	5.576	7.431	5.131	6.888	4.685	6.344	4.240	5.692	3.705
	18	8.764	5.664	8.246	5.265	7.728	4.867	7.210	4.469	6.691	4.071	6.070	3.593
	19	9.015	5.298	8.550	4.910	8.085	4.521	7.620	4.133	7.087	3.837	6.448	3.481
	20	9.246	4.931	8.734	4.549	8.222	4.167	7.710	3.785	7.198	3.403	6.583	2.944
28	18	8.764	7.006	8.246	6.607	7.728	6.209	7.210	5.811	6.691	5.413	6.070	4.935
	19	9.015	6.640	8.550	6.252	8.085	5.864	7.620	5.475	7.087	5.179	6.448	4.823
	20	9.246	6.273	8.734	5.891	8.222	5.509	7.710	5.127	7.198	4.745	6.583	4.286
	21	9.482	5.899	8.951	5.486	8.419	5.073	7.888	4.659	7.356	4.246	6.719	3.749
	22	9.719	5.526	9.168	5.081	8.617	4.636	8.066	4.191	7.515	3.746	6.854	3.213
	23	9.956	5.152	9.385	4.676	8.815	4.199	8.244	3.723	7.674	3.247	6.989	2.676
	24	10.192	4.778	9.602	4.270	9.012	3.763	8.423	3.256	7.833	2.748	7.125	2.139
30	20	9.246	6.944	8.734	6.562	8.222	6.180	7.710	5.798	7.198	5.416	6.583	4.957
	21	9.482	6.571	8.951	6.157	8.419	5.744	7.888	5.330	7.356	4.917	6.719	4.420
	22	9.719	6.197	9.168	5.752	8.617	5.307	8.066	4.862	7.515	4.417	6.854	3.884
	23	9.956	5.823	9.385	5.347	8.815	4.870	8.244	4.394	7.674	3.918	6.989	3.347
	24	10.192	5.449	9.602	4.941	9.012	4.434	8.423	3.927	7.833	3.419	7.125	2.810

HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.695	4.695	5.314	5.314	5.520	5.520	7.790	7.790	9.028	9.028	9.647	9.647	10.266	10.266
17	4.572	4.572	5.287	5.287	5.408	5.408	7.781	7.781	8.961	8.961	9.589	9.589	10.216	10.216
19	4.449	4.449	5.260	5.260	5.296	5.296	7.771	7.771	8.895	8.895	9.530	9.530	10.165	10.165
21	4.326	4.326	5.157	5.157	5.184	5.184	7.699	7.699	8.829	8.829	9.472	9.472	10.115	10.115
23	4.203	4.203	4.980	4.980	5.071	5.071	7.564	7.564	8.762	8.762	9.414	9.414	10.065	10.065
25	4.080	4.080	4.802	4.802	4.959	4.959	7.429	7.429	8.696	8.696	9.356	9.356	10.015	10.015
27	3.957	3.957	4.624	4.624	4.847	4.847	7.295	7.295	8.630	8.630	9.297	9.297	9.965	9.965
	FROST REGION													

R410A MODELS
(HEATPUMP)

MODEL : M5CM 028ER / M5LC 035CR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.685	5.958	8.373	5.617	8.022	5.364	7.670	5.111	7.318	4.858	6.897	4.555
	16	9.015	5.683	8.659	5.401	8.283	5.162	7.907	4.923	7.531	4.684	7.079	4.398
24	16	9.015	7.025	8.659	6.743	8.283	6.504	7.907	6.265	7.531	6.026	7.079	5.740
	17	9.345	6.751	8.944	6.526	8.544	6.302	8.143	6.077	7.743	5.852	7.262	5.583
	18	9.693	6.435	9.261	6.241	8.828	6.047	8.396	5.853	7.964	5.659	7.445	5.426
	19	10.051	6.097	9.634	5.821	9.218	5.546	8.801	5.271	8.268	5.270	7.628	5.269
	20	10.389	5.781	9.889	5.539	9.389	5.296	8.888	5.053	8.388	4.810	7.788	4.519
28	18	9.693	7.777	9.261	7.583	8.828	7.389	8.396	7.195	7.964	7.001	7.445	6.768
	19	10.051	7.439	9.634	7.163	9.218	6.888	8.801	6.613	8.268	6.612	7.628	6.611
	20	10.389	7.123	9.889	6.881	9.389	6.638	8.888	6.395	8.388	6.152	7.788	5.861
	21	10.737	6.786	10.200	6.463	9.664	6.141	9.128	5.819	8.592	5.497	7.948	5.110
	22	11.084	6.448	10.512	6.046	9.940	5.645	9.367	5.243	8.795	4.842	8.108	4.360
	23	11.432	6.110	10.823	5.629	10.215	5.148	9.607	4.667	8.998	4.186	8.269	3.609
	24	11.779	5.772	11.135	5.212	10.491	4.652	9.846	4.091	9.202	3.531	8.429	2.858
30	20	10.389	7.794	9.889	7.552	9.389	7.309	8.888	7.066	8.388	6.823	7.788	6.532
	21	10.737	7.457	10.200	7.135	9.664	6.812	9.128	6.490	8.592	6.168	7.948	5.781
	22	11.084	7.119	10.512	6.717	9.940	6.316	9.367	5.914	8.795	5.513	8.108	5.031
	23	11.432	6.781	10.823	6.300	10.215	5.819	9.607	5.338	8.998	4.857	8.269	4.280
	24	11.779	6.444	11.135	5.883	10.491	5.323	9.846	4.762	9.202	4.202	8.429	3.529

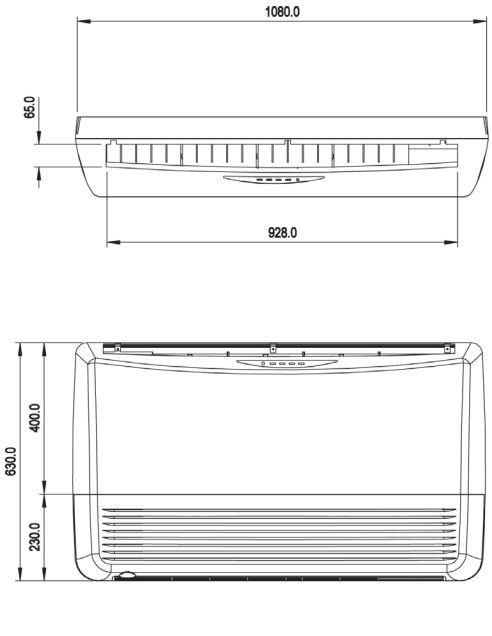
HEATING MODE

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.492	5.492	6.217	6.217	6.458	6.458	9.113	9.113	10.561	10.561	11.285	11.285	12.009	12.009
17	5.348	5.348	6.075	6.075	6.285	6.285	9.102	9.102	10.264	10.264	10.966	10.966	11.668	11.668
19	5.204	5.204	5.933	5.933	6.112	6.112	9.091	9.091	9.967	9.967	10.647	10.647	11.328	11.328
21	5.061	5.061	5.770	5.770	5.938	5.938	8.872	8.872	9.670	9.670	10.328	10.328	10.987	10.987
23	4.917	4.917	5.587	5.587	5.765	5.765	8.446	8.446	9.373	9.373	10.010	10.010	10.646	10.646
25	4.773	4.773	5.404	5.404	5.592	5.592	8.020	8.020	9.076	9.076	9.691	9.691	10.306	10.306
27	4.629	4.629	5.221	5.221	5.419	5.419	7.593	7.593	8.779	8.779	9.372	9.372	9.965	9.965
	FROST REGION													

Dimensional Data

INDOOR UNIT

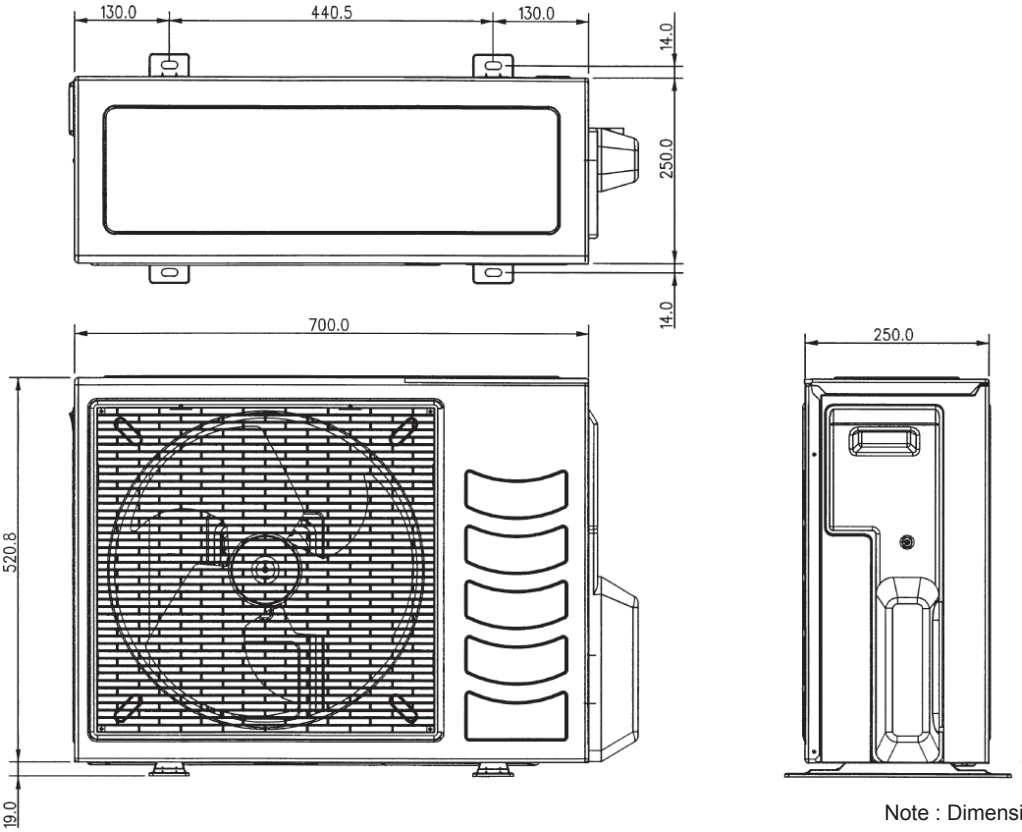
MCM 015/020/025/028E/ER
M5CM 015/020/025/028E/ER



Note : Dimension in mm

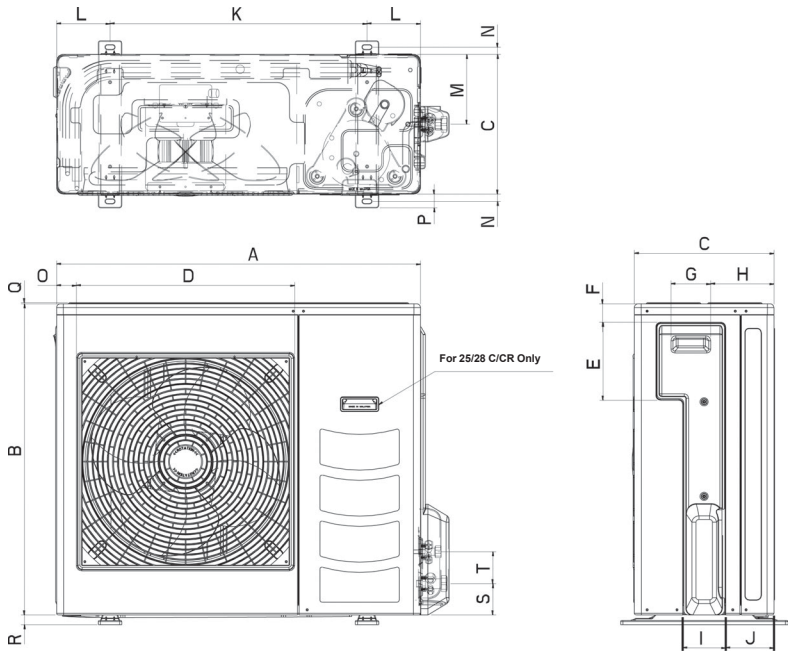
OUTDOOR UNIT

MLC / M5LC 015 C/CR



Note : Dimension in mm

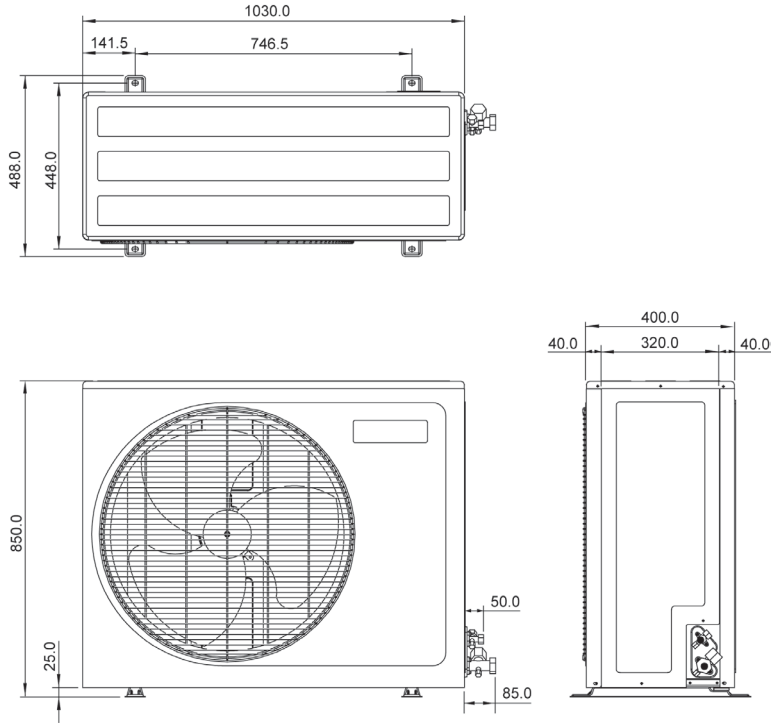
MLC 018C/CR
MLC 020/025/028C/CR
M5LC 020/025/028C/CR



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MLC 018C, MLC/M5LC 020C/CR	855	628	328	508	181	44	93	149	101	113	603	126	164	17	49	32	3	23	73	75
MLC / M5LC 025/028 C/CR	855	730	328	513	182	44	93	149	101	113	603	126	164	17	47	32	3	23	73	75

Note : Dimension in mm

MLC 030C/CR
M5LC 035C/CR



Note : Dimension in mm

Electrical Data

ELECTRICAL DATA - COOLING ONLY (R22)

MODEL	INDOOR UNIT		MCM 015E
	OUTDOOR UNIT		MLC 015C
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	79
	RATED RUNNING CURRENT	A	0.34
	MOTOR OUTPUT	W	50
	POLES		6
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	59
	RATED RUNNING CURRENT	A	0.26
	MOTOR OUTPUT	W	35
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	30.0
	RATED INPUT POWER	W	1112
	RATED RUNNING CURRENT	A	5.0
	LOCKED ROTOR AMP.	A	21

MODEL	INDOOR UNIT		MCM 020E	
	OUTDOOR UNIT		MLC 018C	MLC 020C
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	101	
	RATED RUNNING CURRENT	A	0.46	
	MOTOR OUTPUT	W	50	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	120	120
	RATED RUNNING CURRENT	A	0.53	0.53
	MOTOR OUTPUT	W	64	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	mF	60.0	60.0
	RATED INPUT POWER	W	1653	1640
	RATED RUNNING CURRENT	A	7.4	7.0
	LOCKED ROTOR AMP.	A	32	32

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ELECTRICAL DATA - COOLING ONLY (R22)

MODEL	INDOOR UNIT		MCM 025E
	OUTDOOR UNIT		MLC 025C
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	109
	RATED RUNNING CURRENT	A	0.49
	MOTOR OUTPUT	W	65
	POLES		4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	132
	RATED RUNNING CURRENT	A	0.58
	MOTOR OUTPUT	W	64
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	45.0
	RATED INPUT POWER	W	2222
	RATED RUNNING CURRENT	A	11.0
	LOCKED ROTOR AMP.	A	54

MODEL	INDOOR UNIT		MCM 028E	
	OUTDOOR UNIT		MLC 028C	MLC 030C
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	150	
	RATED RUNNING CURRENT	A	0.75	
	MOTOR OUTPUT	W	70	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.02
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	mF	50.0	50.0
	RATED INPUT POWER	W	2519	2377
	RATED RUNNING CURRENT	A	12.2	11.5
	LOCKED ROTOR AMP.	A	66	82

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ELECTRICAL DATA - HEATPUMP (R22)

MODEL	INDOOR UNIT		MCM 015ER
	OUTDOOR UNIT		MLC 015CR
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	79
	RATED RUNNING CURRENT	A	0.34
	MOTOR OUTPUT	W	50
	POLES		6
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	59
	RATED RUNNING CURRENT	A	0.26
	MOTOR OUTPUT	W	35
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	35.0
	RATED INPUT POWER (COOLING)	W	1150
	RATED INPUT POWER (HEATING)	W	860
	RATED RUNNING CURRENT (COOLING)	A	5.2
	RATED RUNNING CURRENT (HEATING)	A	3.9
	LOCKED ROTOR AMP.	A	24

MODEL	INDOOR UNIT		MCM 020ER	
	OUTDOOR UNIT		MLC 018CR	MLC 020CR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	101	
	RATED RUNNING CURRENT	A	0.46	
	MOTOR OUTPUT	W	50	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	120	117
	RATED RUNNING CURRENT	A	0.53	0.51
	MOTOR OUTPUT	W	64	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	mF	60.0	45.0
	RATED INPUT POWER (COOLING)	W	1649	1522
	RATED INPUT POWER (HEATING)	W	1489	1512
	RATED RUNNING CURRENT (COOLING)	A	7.4	6.7
	RATED RUNNING CURRENT (HEATING)	A	7.6	7.0
	LOCKED ROTOR AMP.	A	32	47

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ELECTRICAL DATA - HEATPUMP (R22)

MODEL	INDOOR UNIT		MCM 025ER
	OUTDOOR UNIT		MLC 025CR
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	109
	RATED RUNNING CURRENT	A	0.49
	MOTOR OUTPUT	W	65
	POLES		4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	132
	RATED RUNNING CURRENT	A	0.58
	MOTOR OUTPUT	W	64
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	45.0
	RATED INPUT POWER (COOLING)	W	2222
	RATED INPUT POWER (HEATING)	W	2062
	RATED RUNNING CURRENT (COOLING)	A	11.0
	RATED RUNNING CURRENT (HEATING)	A	10.6
	LOCKED ROTOR AMP.	A	54

MODEL	INDOOR UNIT		MCM 028ER	
	OUTDOOR UNIT		MLC 028CR	MLC 030CR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	150	
	RATED RUNNING CURRENT	A	0.75	
	MOTOR OUTPUT	W	70	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.02
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	CAPACITOR	mF	50.0	50.0
	RATED INPUT POWER (COOLING)	W	2570	2377
	RATED INPUT POWER (HEATING)	W	2610	2584
	RATED RUNNING CURRENT (COOLING)	A	12.3	11.5
	RATED RUNNING CURRENT (HEATING)	A	12.4	12.3
	LOCKED ROTOR AMP.	A	66	82

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ELECTRICAL DATA - COOLING ONLY (R410A)

MODEL	INDOOR UNIT		M5CM 015E
	OUTDOOR UNIT		M5LC 015C
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	79
	RATED RUNNING CURRENT	A	0.34
	MOTOR OUTPUT	W	26
	POLES		6
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	59
	RATED RUNNING CURRENT	A	0.26
	MOTOR OUTPUT	W	35
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	35.0
	RATED INPUT POWER	W	1130
	RATED RUNNING CURRENT	A	5.4
	LOCKED ROTOR AMP.	A	24

MODEL	INDOOR UNIT		M5CM 020E	M5CM 025E
	OUTDOOR UNIT		M5LC 020C	M5LC 025C
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	101	109
	RATED RUNNING CURRENT	A	0.46	0.49
	MOTOR OUTPUT	W	50	65
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	120	132
	RATED RUNNING CURRENT	A	0.53	0.58
	MOTOR OUTPUT	W	64	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
	CAPACITOR	mF	50.0 / <NIL>	50.0 / <NIL>
	RATED INPUT POWER	W	1502 / <1536>	1732 / <1990>
	RATED RUNNING CURRENT	A	6.6 / <3.0>	7.8 / <3.8>
	LOCKED ROTOR AMP.	A	27 / <19>	63 / <26>

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ELECTRICAL DATA - COOLING ONLY (R410A)

MODEL	INDOOR UNIT		M5CM 028E	
	OUTDOOR UNIT		M5LC 028C	M5LC 035C
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	150	
	RATED RUNNING CURRENT	A	0.75	
	MOTOR OUTPUT	W	70	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.06
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
	CAPACITOR	mF	45.0 / <NIL>	60.0 / <NIL>
	RATED INPUT POWER	W	2378 / <2423>	2547 / <2447>
	RATED RUNNING CURRENT	A	11.30 / <4.29>	12.70 / <3.01>
	LOCKED ROTOR AMP.	A	65 / <26>	97 / <7>

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ELECTRICAL DATA - HEATPUMP (R410A)

MODEL	INDOOR UNIT		M5CM 015ER
	OUTDOOR UNIT		M5LC 015CR
INDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	79
	RATED RUNNING CURRENT	A	0.34
	MOTOR OUTPUT	W	50
	POLES		6
OUTDOOR MOTOR	INSULATION GRADE		CLASS B
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	RATED INPUT POWER	W	59
	RATED RUNNING CURRENT	A	0.26
	MOTOR OUTPUT	W	35
	POLES		6
COMPRESSOR	INSULATION GRADE		CLASS E
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50
	CAPACITOR	mF	35.0
	RATED INPUT POWER (COOLING)	W	1130
	RATED INPUT POWER (HEATING)	W	1000
	RATED RUNNING CURRENT (COOLING)	A	5.4
	RATED RUNNING CURRENT (HEATING)	A	4.5
	LOCKED ROTOR AMP.	A	24

MODEL	INDOOR UNIT		M5CM 020ER	M5CM 025ER
	OUTDOOR UNIT		M5LC 020CR	M5LC 025CR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	101	109
	RATED RUNNING CURRENT	A	0.46	0.49
	MOTOR OUTPUT	W	50	65
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	120	132
	RATED RUNNING CURRENT	A	0.53	0.58
	MOTOR OUTPUT	W	64	64
	POLES		6	6
COMPRESSOR	INSULATION GRADE		CLASS E	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
	CAPACITOR	mF	50.0 / <NIL>	50.0 / <NIL>
	RATED INPUT POWER (COOLING)	W	1502 / <1536>	1732 / <1990>
	RATED INPUT POWER (HEATING)	W	1272 / <1306>	1762 / <1883>
	RATED RUNNING CURRENT (COOLING)	A	6.6 / <3.0>	7.8 / <3.8>
	RATED RUNNING CURRENT (HEATING)	A	5.6 / <2.5>	8.0 / <3.6>
	LOCKED ROTOR AMP.	A	27 / <19>	63 / <26>

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ELECTRICAL DATA - HEATPUMP (R410A)

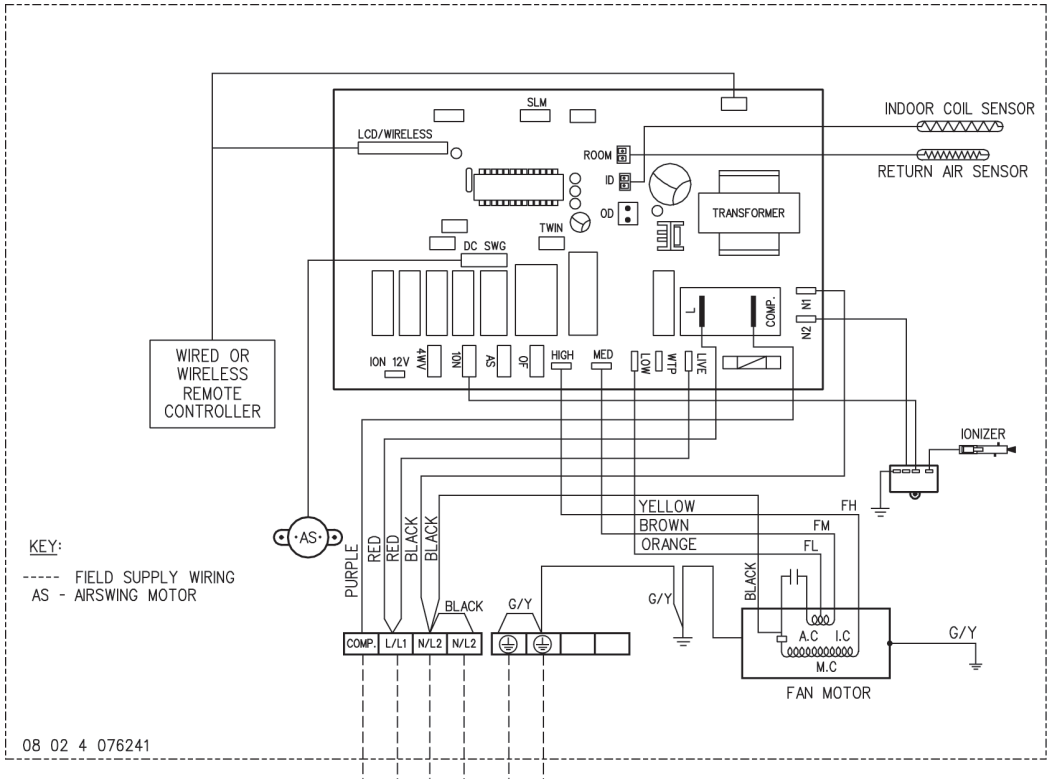
MODEL	INDOOR UNIT		M5CM 028ER	
	OUTDOOR UNIT		M5LC 028CR	M5LC 035CR
INDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	150	
	RATED RUNNING CURRENT	A	0.75	
	MOTOR OUTPUT	W	70	
	POLES		4	
OUTDOOR MOTOR	INSULATION GRADE		CLASS B	
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50	
	RATED INPUT POWER	W	142	220
	RATED RUNNING CURRENT	A	0.62	1.06
	MOTOR OUTPUT	W	75	145
	POLES		6	8
COMPRESSOR	INSULATION GRADE		CLASS E	-
	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 / <380 - 415 / 3 / 50>	
	CAPACITOR	mF	45.0 / <NIL>	60.0 / <NIL>
	RATED INPUT POWER (COOLING)	W	2378 / <2423>	2547 / <2447>
	RATED INPUT POWER (HEATING)	W	2128 / <2086>	2407 / <2297>
	RATED RUNNING CURRENT (COOLING)	A	11.30 / <4.29>	12.70 / <3.01>
	RATED RUNNING CURRENT (HEATING)	A	10.30 / <3.89>	11.80 / <2.81>
	LOCKED ROTOR AMP.	A	65 / <26>	97 / <7>

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.

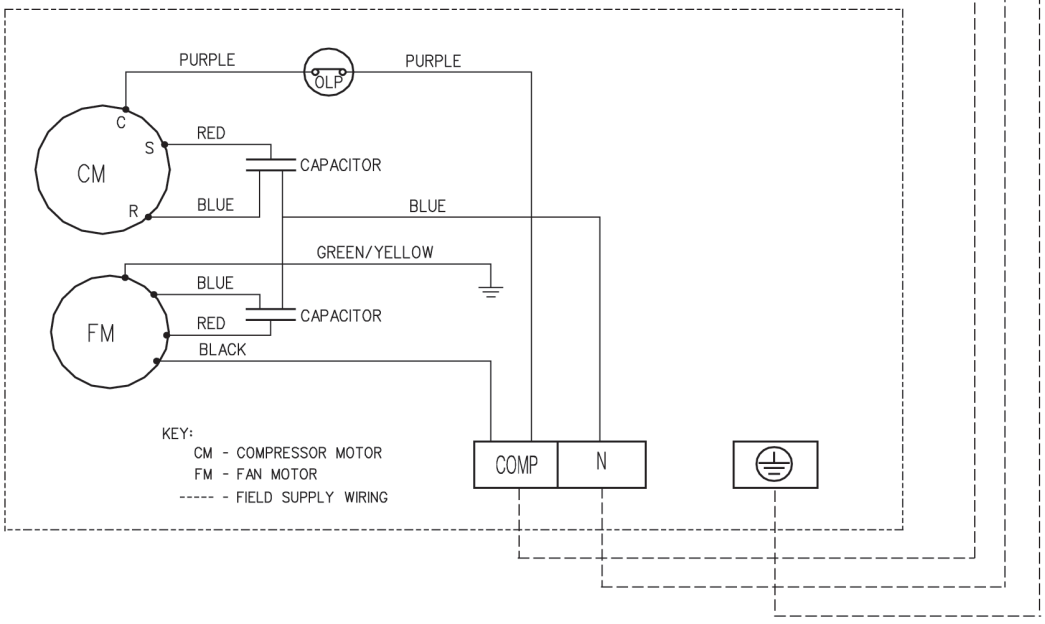
Wiring Diagrams

COOLING ONLY

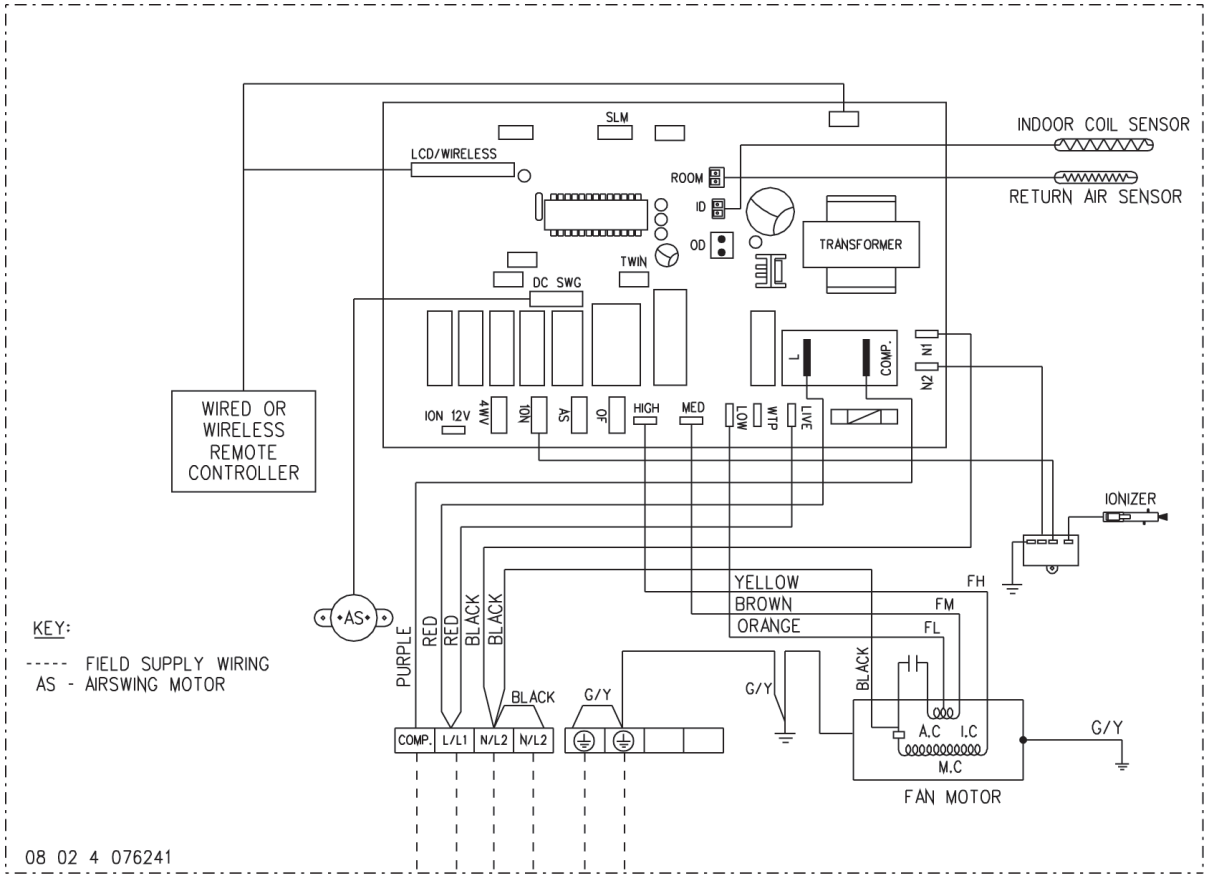
INDOOR UNIT
MODEL: MCM / M5CM 015E



OUTDOOR UNIT
MODEL: MLC / M5LC 015C

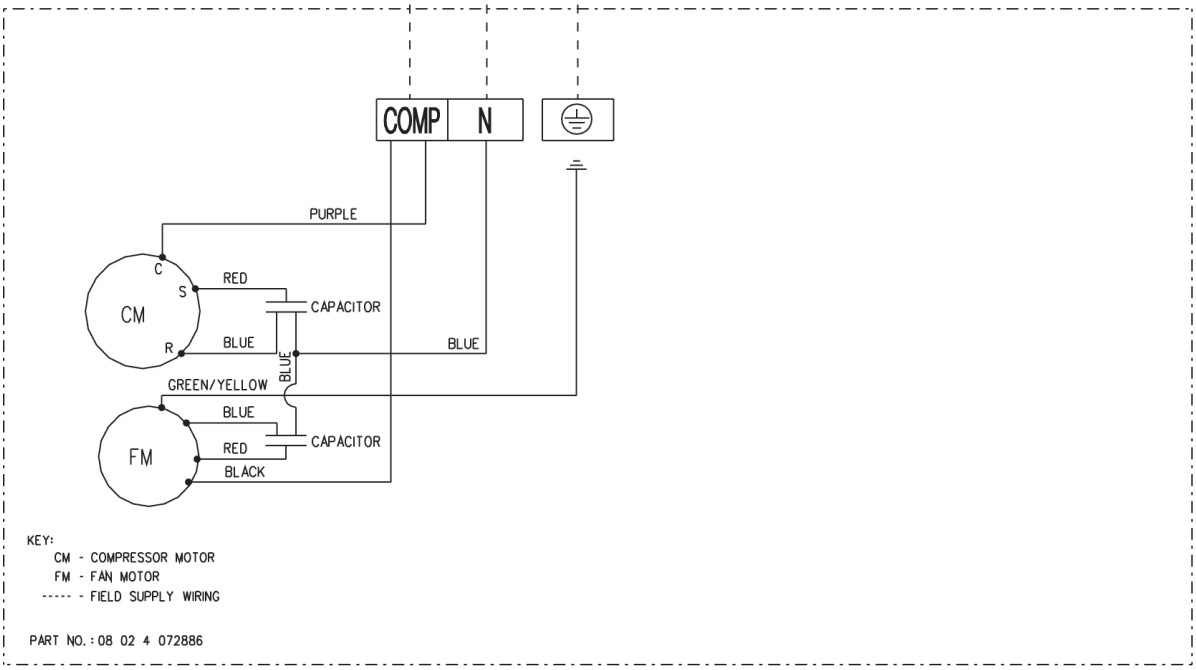


INDOOR UNIT
MODEL: MCM / M5CM 020/025E

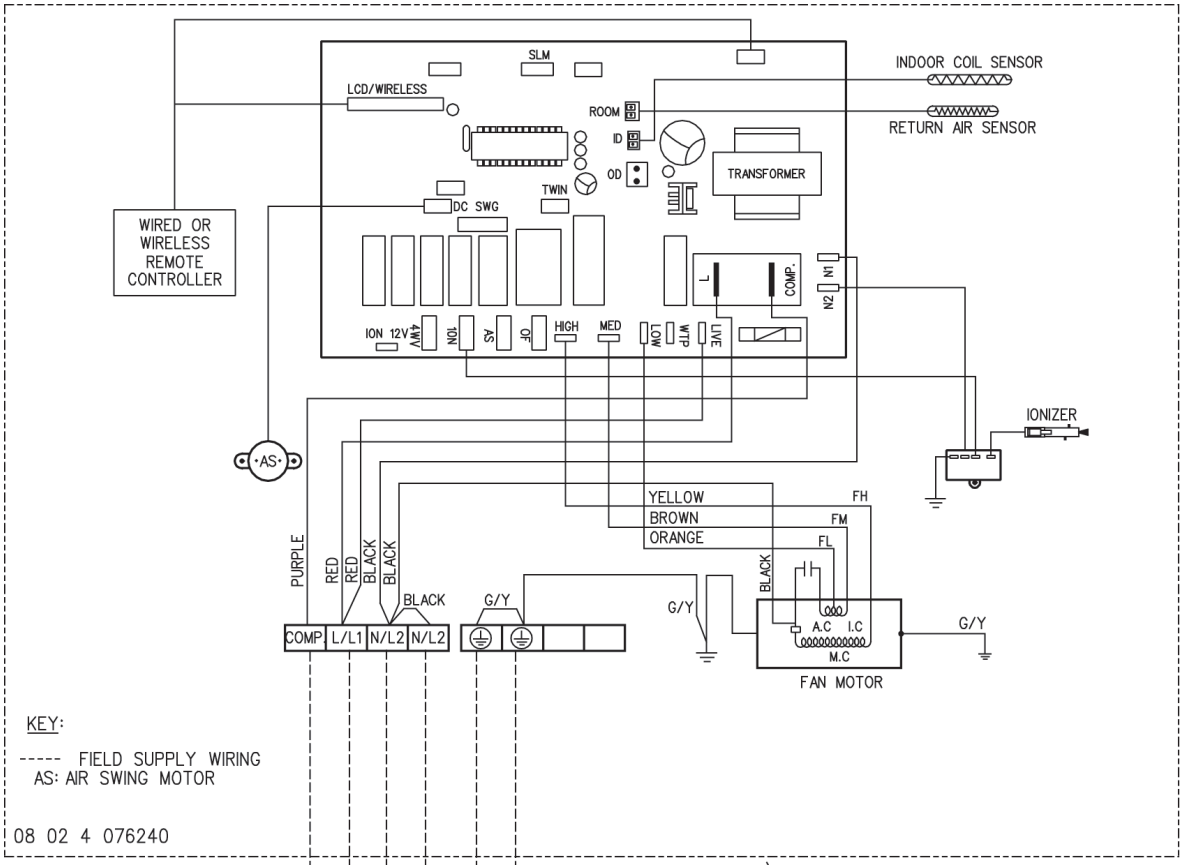


E 1PHASE
N/L2 220/240VAC 50Hz OR
L 208/230 VAC 60Hz

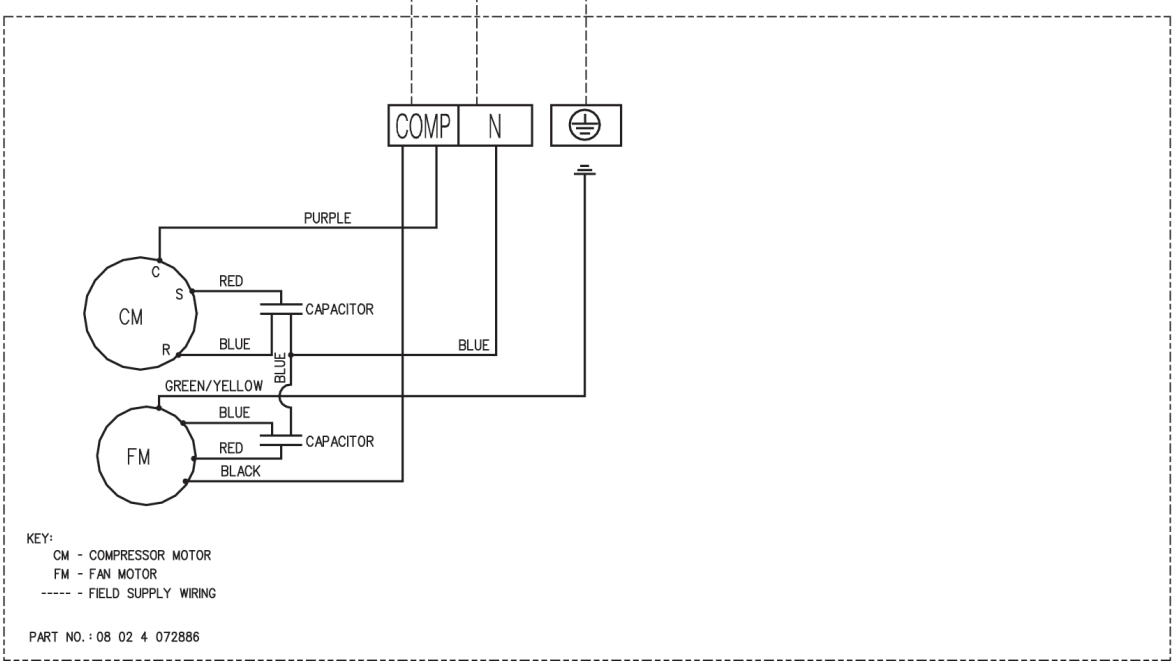
OUTDOOR UNIT
MODEL: MLC 018C
MLC / M5LC 020/025C



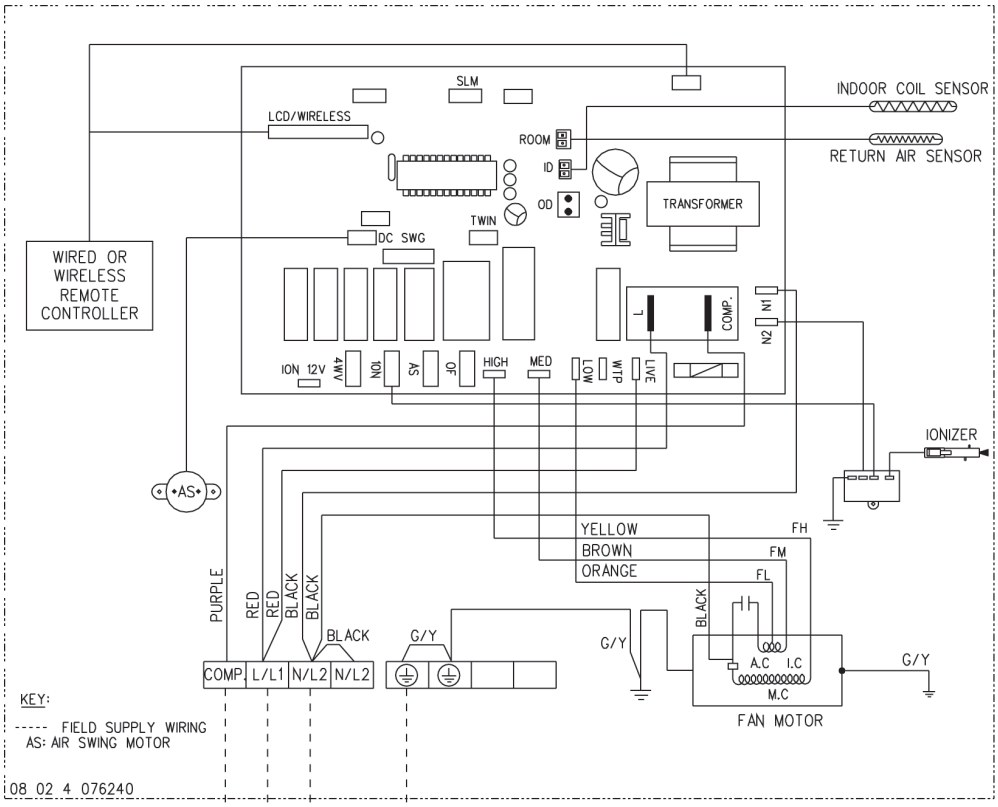
INDOOR UNIT
MODEL: MCM / M5CM 028E



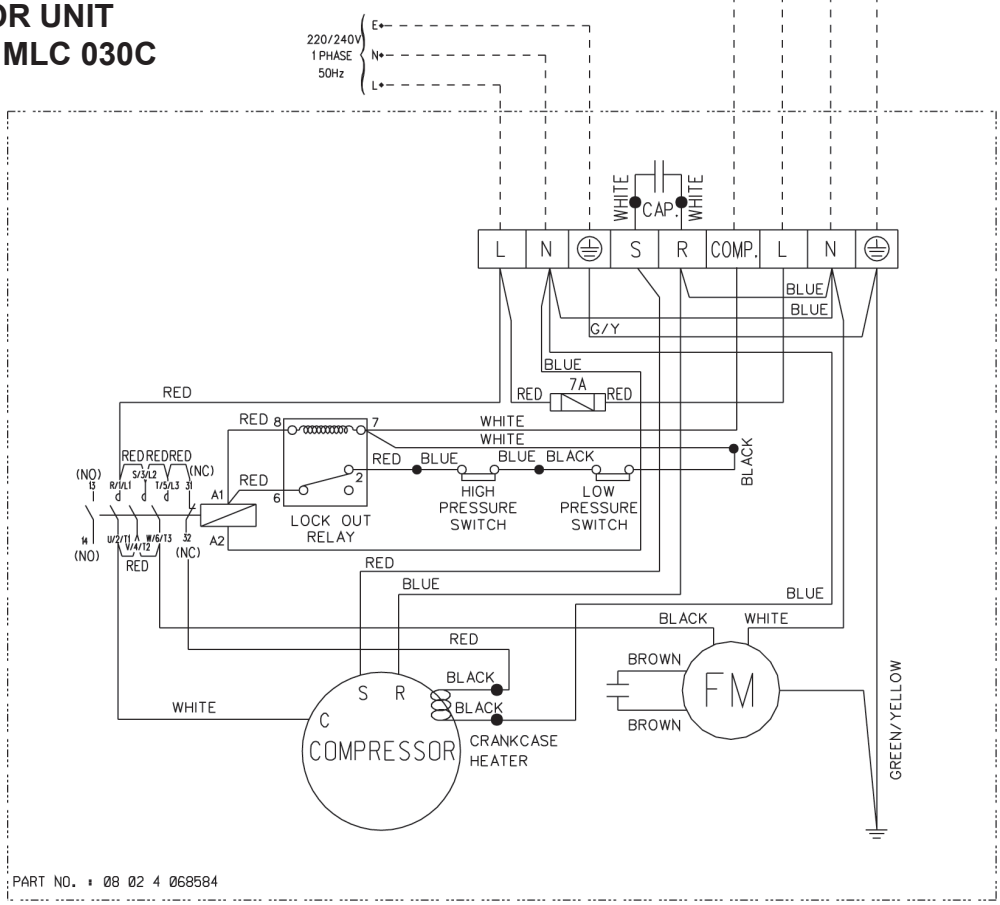
OUTDOOR UNIT
MODEL: MLC / M5LC 028C



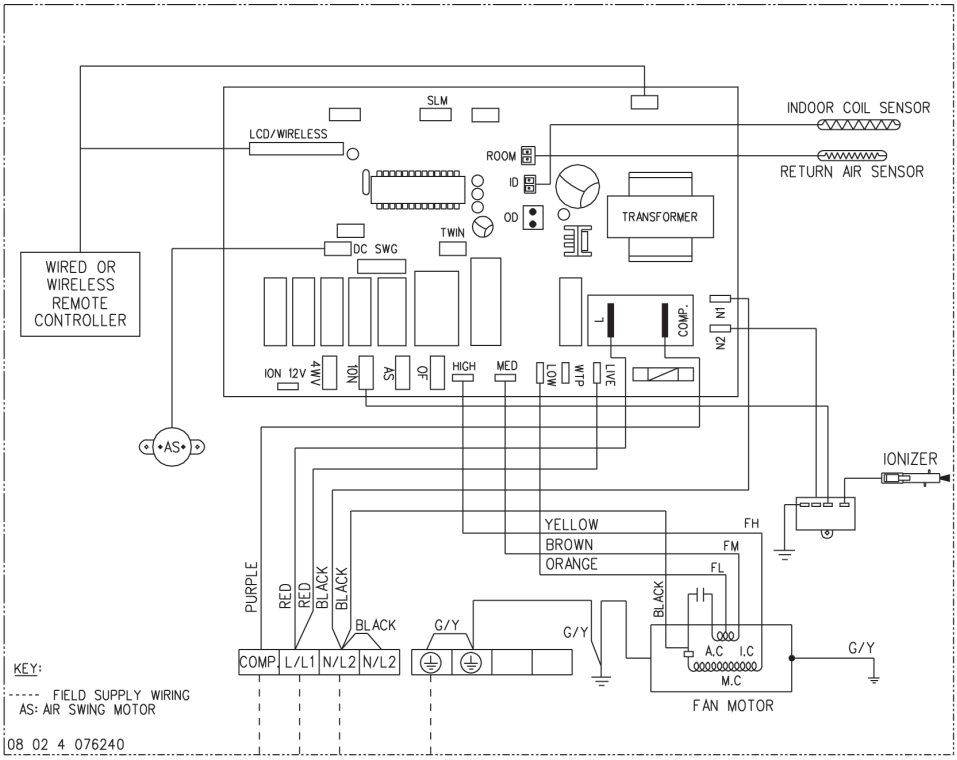
INDOOR UNIT
MODEL: MCM 028E

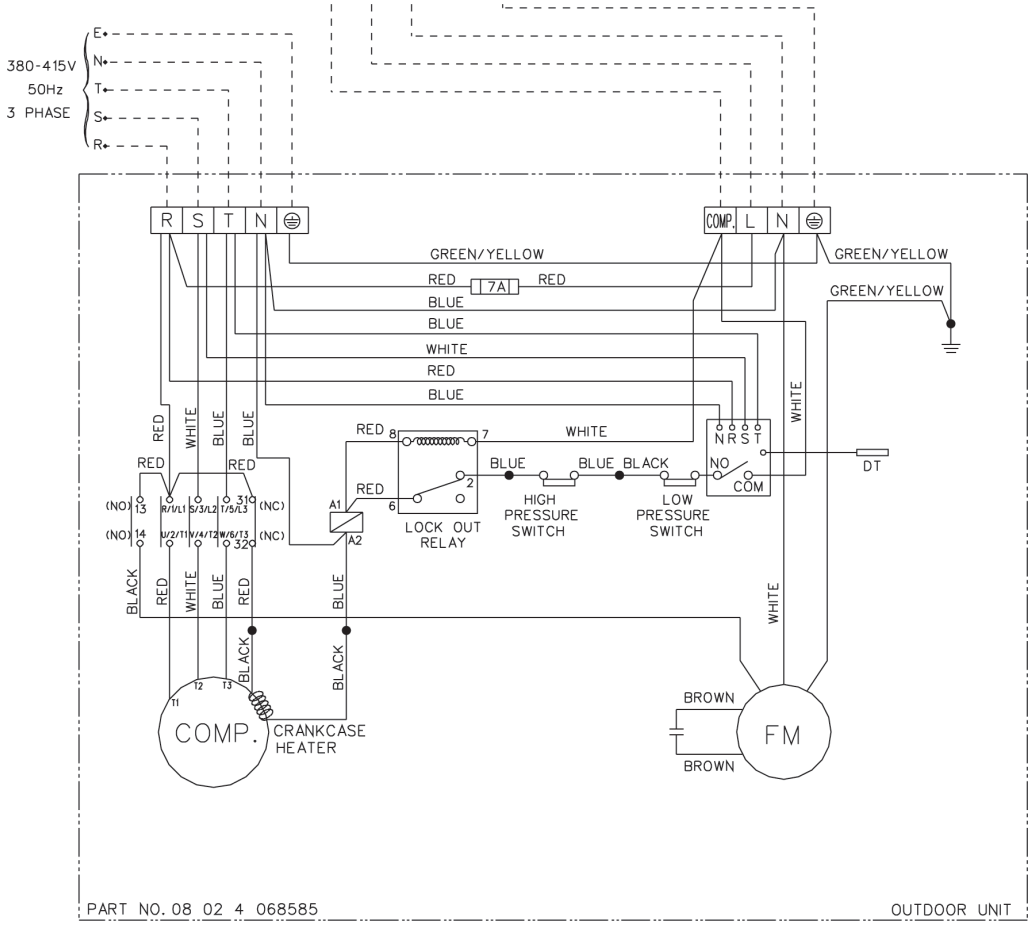


OUTDOOR UNIT
MODEL: MLC 030C



INDOOR UNIT
MODEL: M5CM 028E

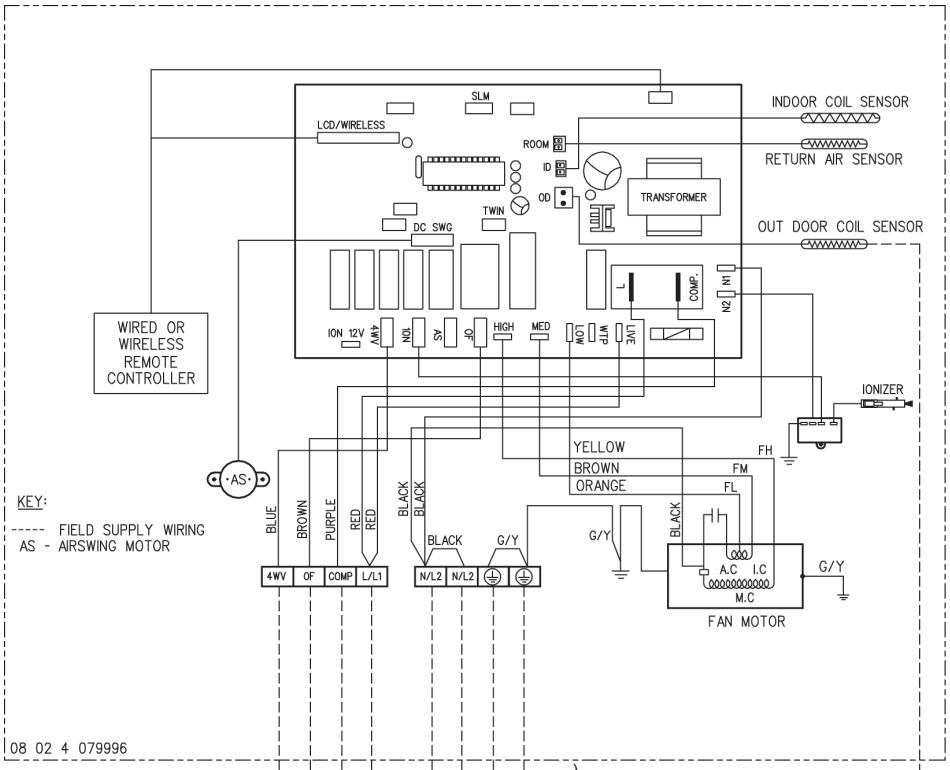




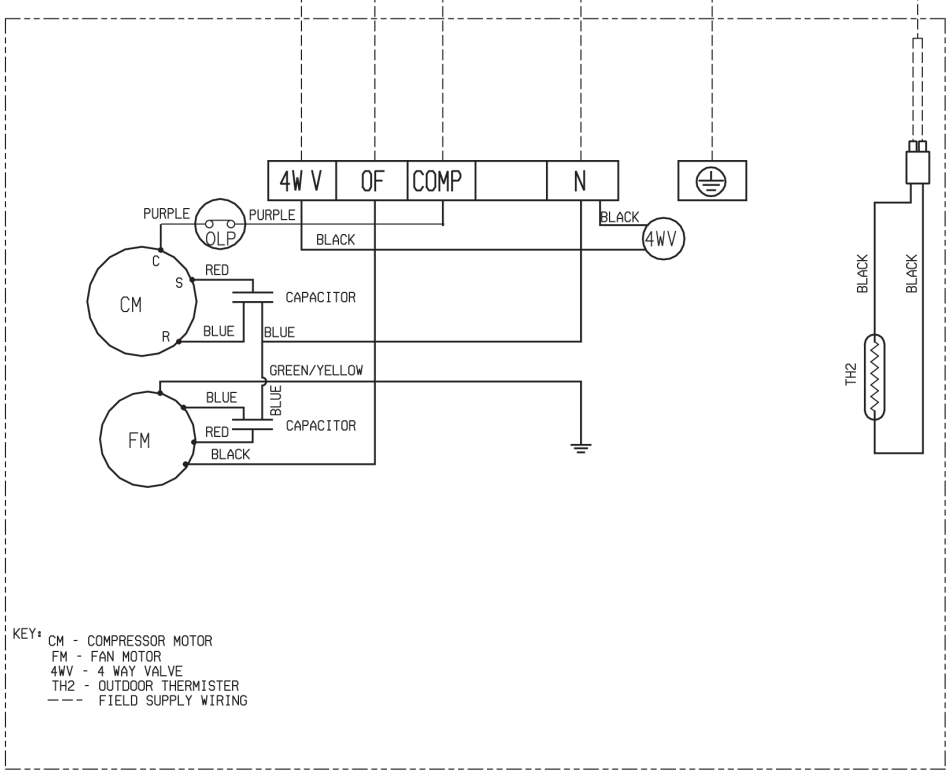
OUTDOOR UNIT
MODEL: M5LC 035C

HEATPUMP

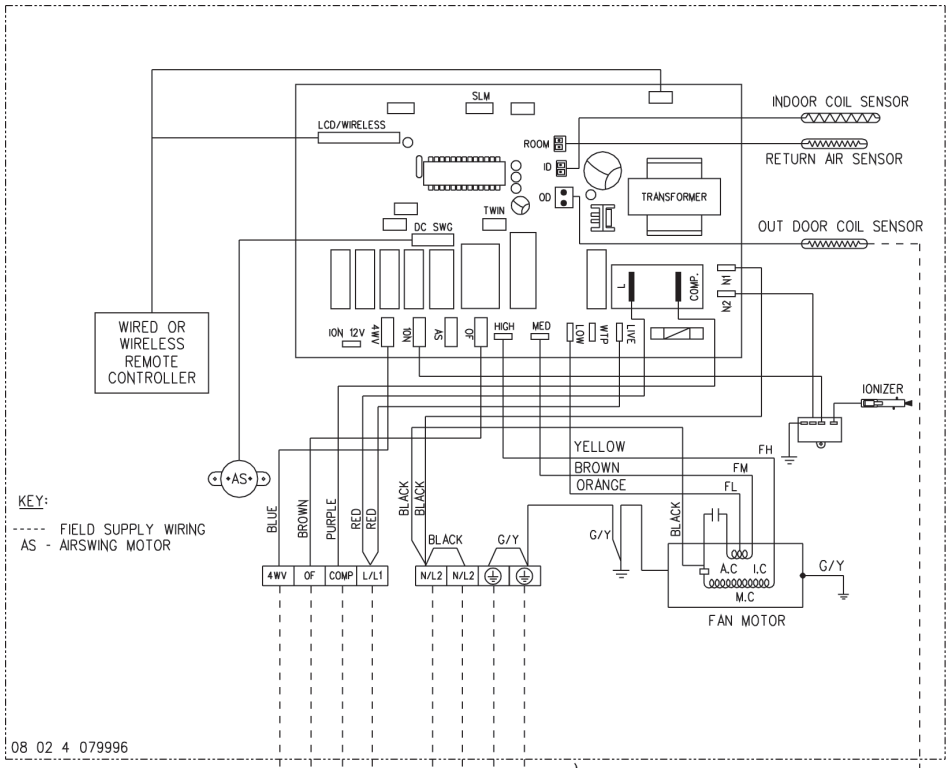
INDOOR UNIT
MODEL: MCM / M5CM 015ER



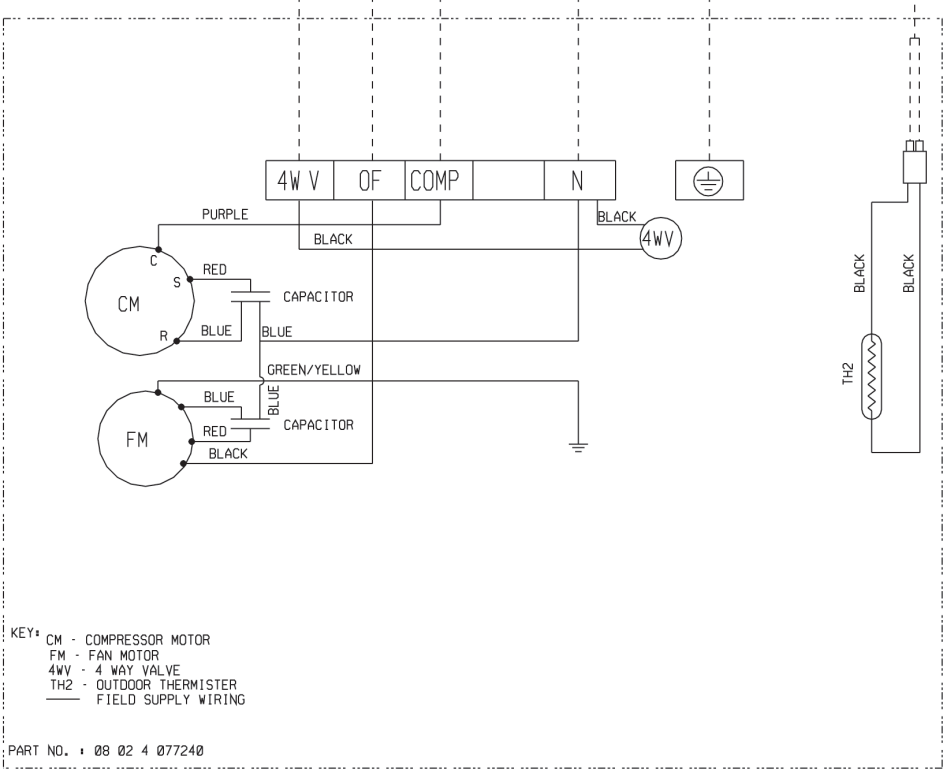
OUTDOOR
MODEL: MLC / M5LC 015CR



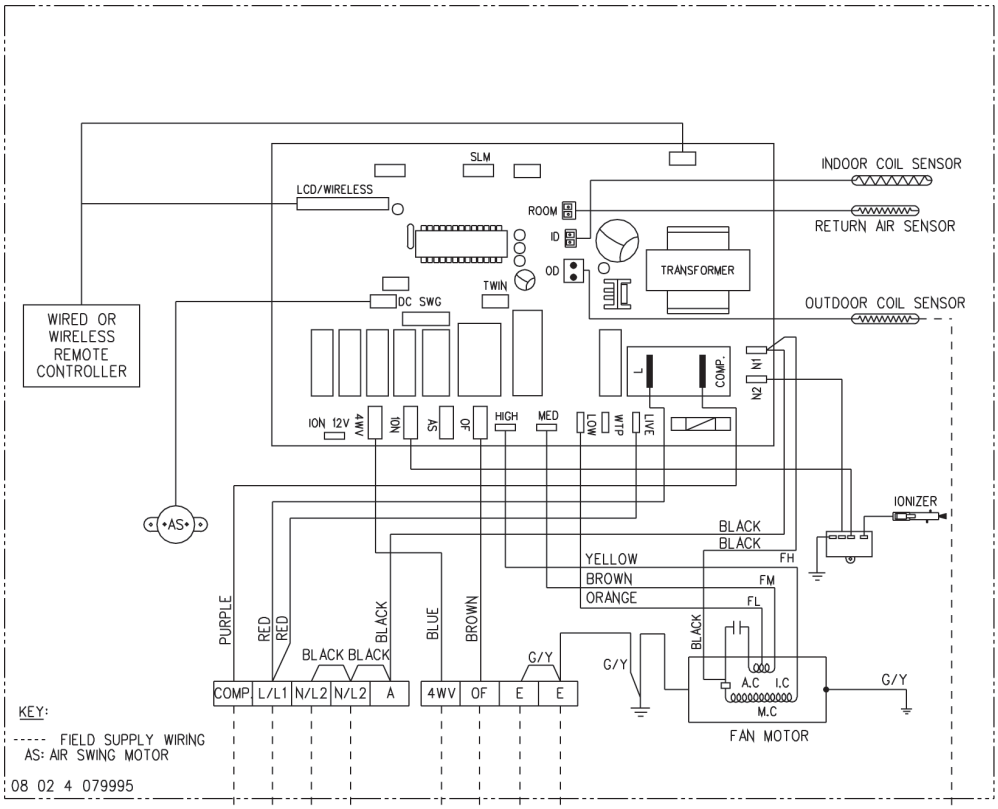
INDOOR UNIT
MODEL: MCM / M5CM 020/025ER



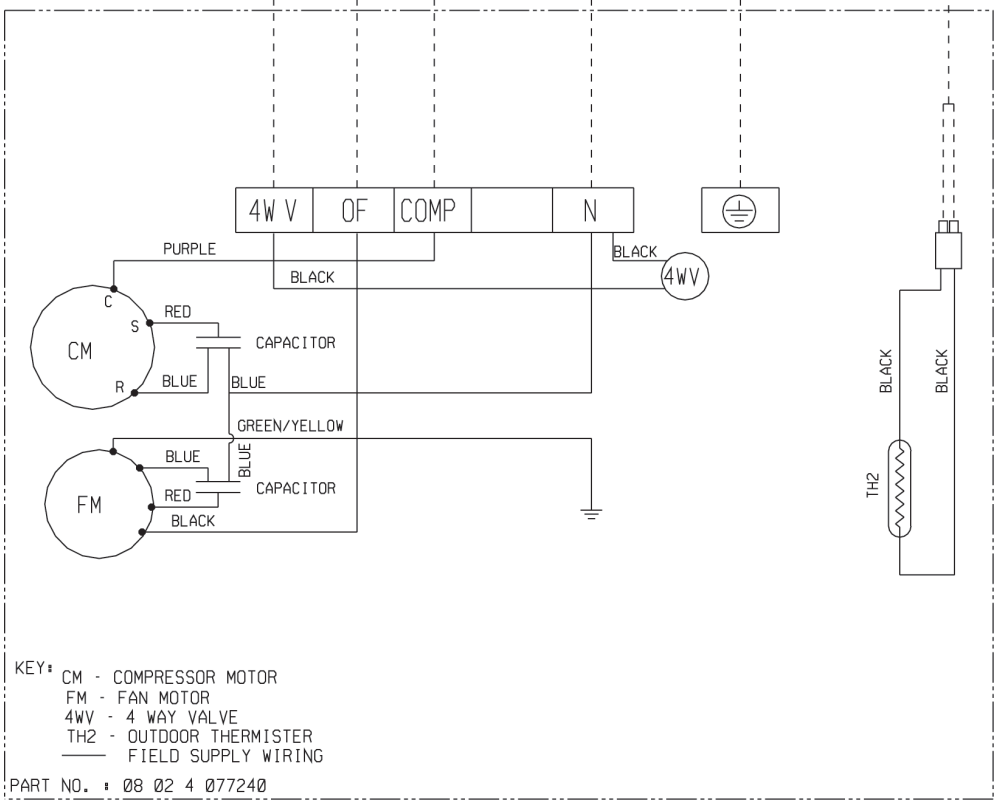
OUTDOOR
MODEL: MLC 018CR
MLC / M5LC 020/025CR



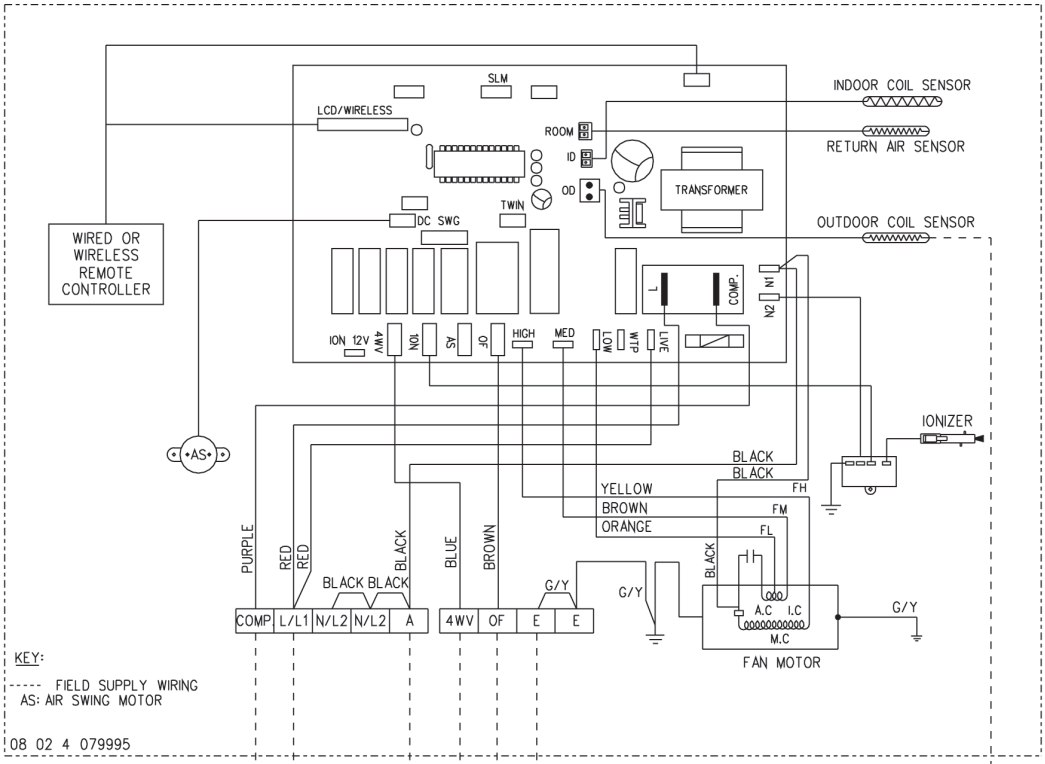
INDOOR UNIT
MODEL: MCM / M5CM 028ER



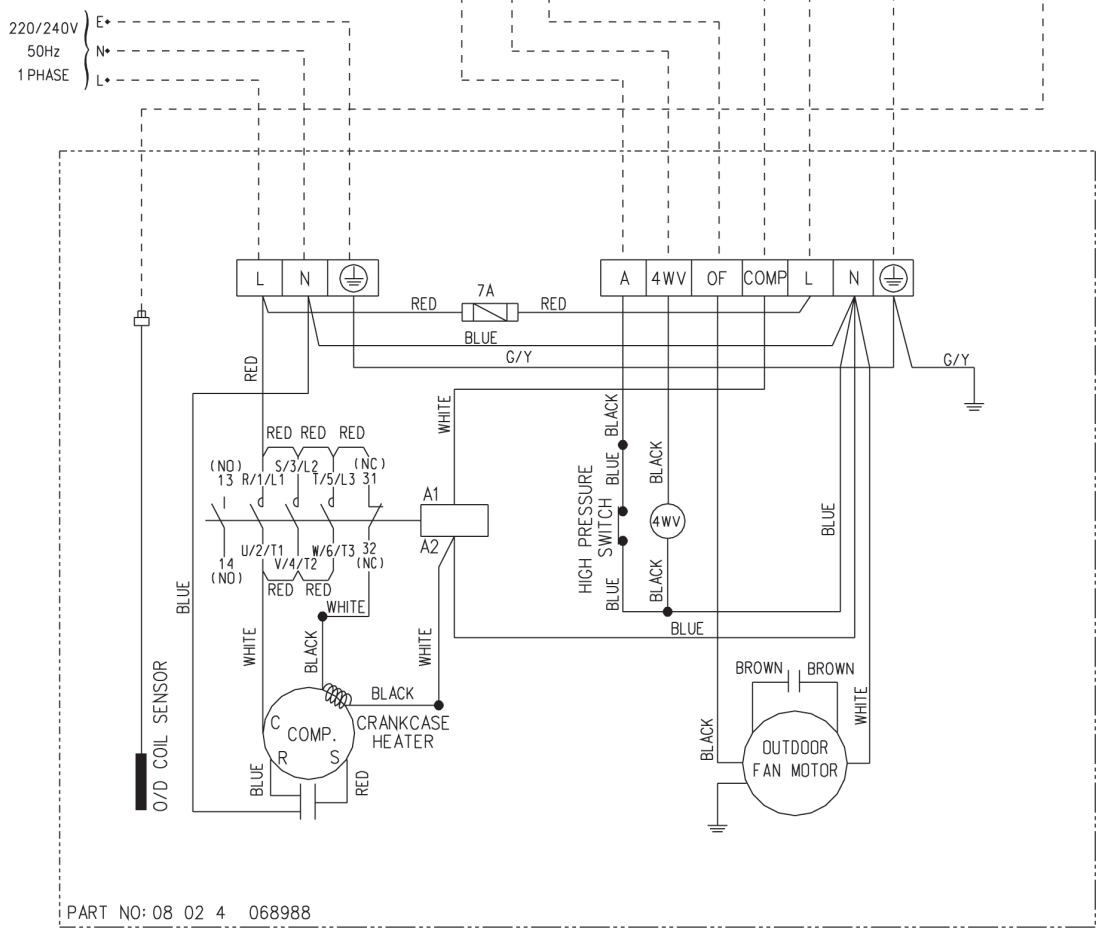
OUTDOOR UNIT
MODEL: MLC / M5LC 028CR



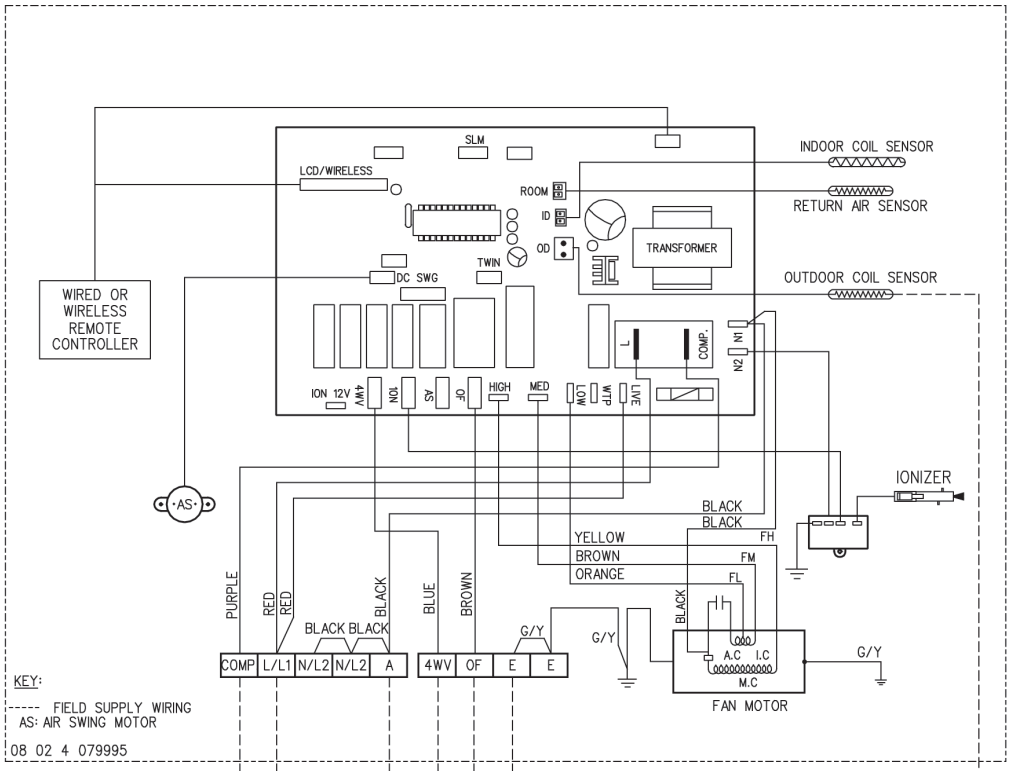
INDOOR UNIT
MODEL: MCM 028ER

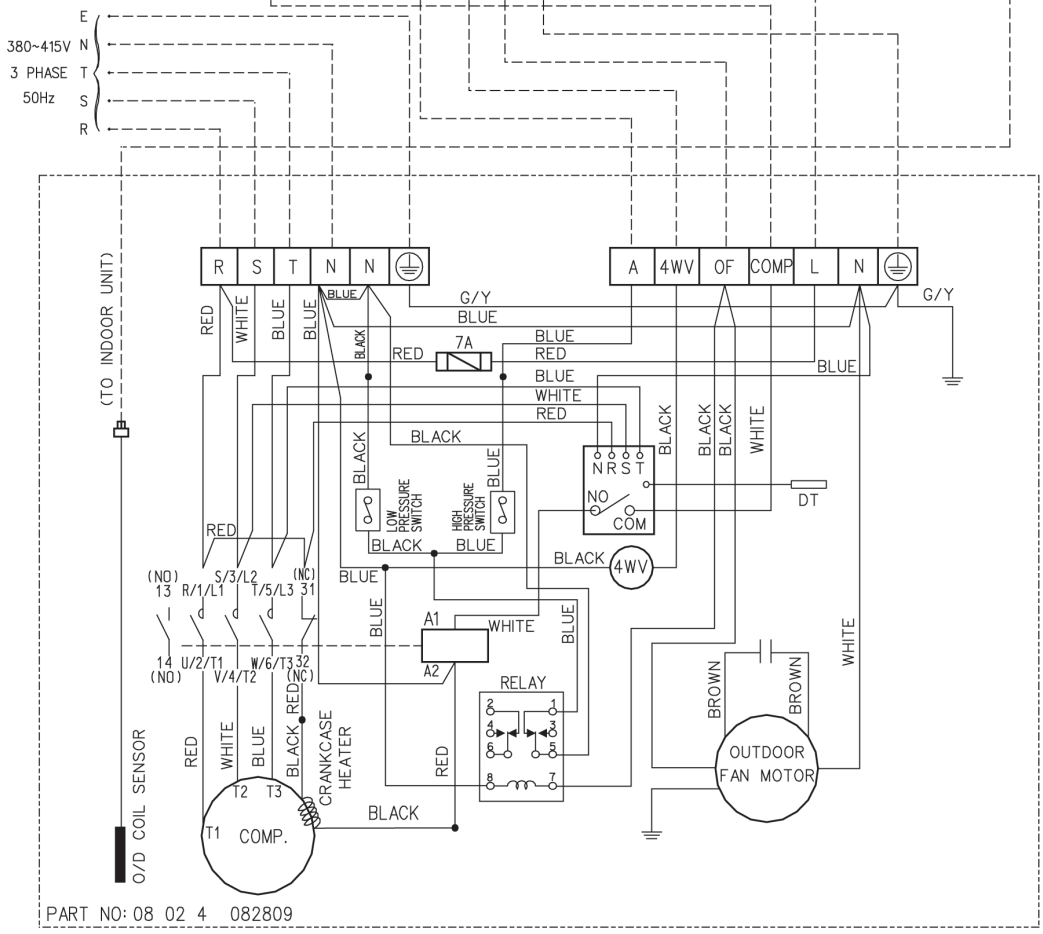


OUTDOOR UNIT
MODEL: MLC 030CR



INDOOR UNIT
MODEL: M5CM 028ER

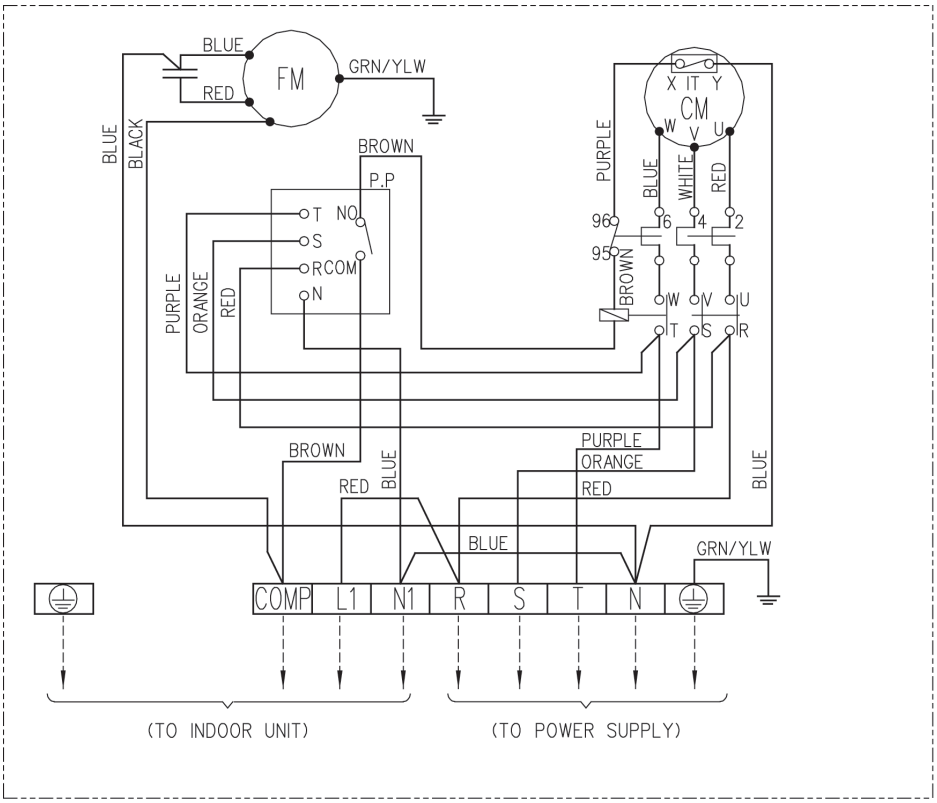




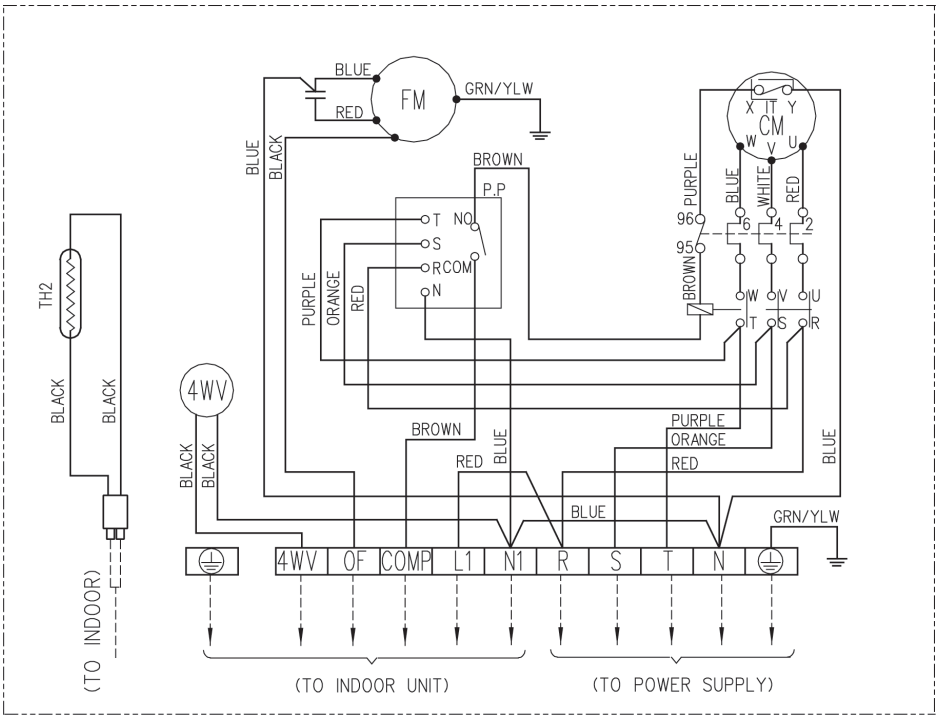
OUTDOOR UNIT
MODEL: M5LC 035CR

3 PHASE FOR 2 & 2.5 HP R410A OUTDOOR UNIT

MODEL: M5LC 020/025C (COOLING ONLY)
3 PHASE / 50Hz / 380 - 415V



MODEL: M5LC 020/025CR (HEAT PUMP)
3 PHASE / 50Hz / 380 - 415V



Servicing And Maintenance

Warning : Disconnect from main supply before servicing the air conditioner

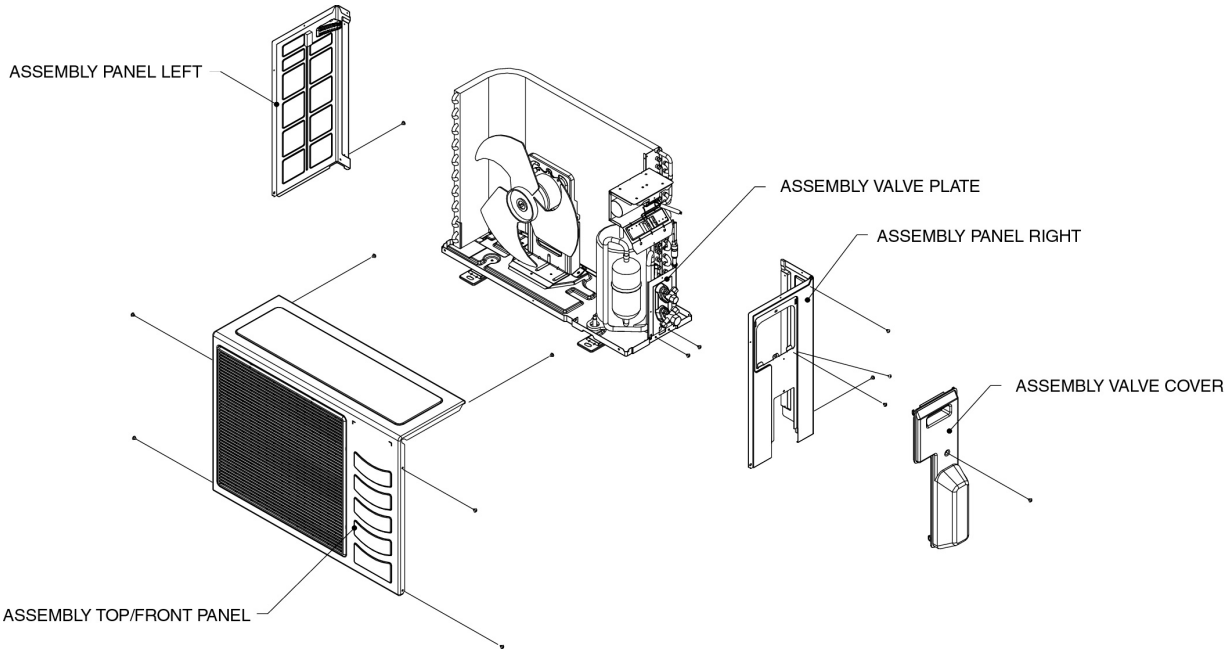
The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedure	Recommended Schedule
Indoor Air Filter	1. Remove any dust adhering on the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C/104°F) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back onto the unit. 3. **Note :Do not use gasoline, volatile substances or chemicals to clean the filter.**	At least once every 2 weeks. More frequently if necessary.
Indoor Unit	1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C/104°F) and a neutral detergent solution. 2. **Note : Do not use gasoline, volatile substances or chemicals to clean the indoor unit.**	At least once every 2 weeks. More frequently if necessary
Condensate Drain Pan and Pipe	1. Check and clean.	Every 3 months.
Indoor Fan	1. Check for unusual noise.	As necessary.
Indoor/Outdoor Coil	1. Check and remove dirt which are clogged between fins. 2. Check and remove obstacles which hinder air flow in and out of indoor/outdoor unit.	Every month. Every month.
Electrical	1. Check voltage, current and wiring. 2. Check faulty contacts caused by loose connections, foreign matters, etc.	Every 2 months. Every 2 months.
Compressor	1. No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joints and fittings.	Every 6 months.
Compressor Lubrication	1. Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motors Lubrication	1. All motors pre-lubricated and sealed at factory.	No maintenance required.

PRE START UP MAINTENANCE
(AFTER EXTENDED SHUTDOWN)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensate drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

The design of the MLC outdoor series allows servicing to be carried out readily and easily. The removal of the top/front and back panel make almost every part accessible.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once quarterly. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.

CAUTION!

Do not charge OXYGEN, ACETYLENE OR OTHER FLAMMABLE and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.
The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

No	Fault conditions	Possible causes / corrective actions
1	The air conditioner unit will not resume after power failure.	• The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.
2	The compressor does not operate 3 minutes after the air conditioner unit is started.	• Protection against frequent starting. • Wait for 3 or 4 minutes for the compressor to start operating by it self.
3	The airflow is too slow or room cannot be cooled sufficiently.	• The air filter is dirty. • The doors and windows are opened. • The air suction and discharge of both indoor and outdoor units are clogged or blocked. • The regulated temperature or temperature setting is not low enough.
4	Discharge airflow has bad odor.	• Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor. • Contact your nearest dealer.
5	Condensation on the front air grille of the indoor unit.	• This is caused by air humidity after an extended period of operation. • The set temperature is too low. Increase the temperature setting and operate the unit at high fan speed.
6	Water flowing out from the air conditioner.	• Switch off the unit and contact your nearest dealer. This might be due to tilted installation.
7	Hissing airflow sound from the air conditioner unit during operation.	• Liquid refrigerant flowing into the evaporator coil.
8	The wireless controller display is dim.	• The batteries are discharged. • The batteries are not correctly inserted. • The assembly is not good.
9	Compressor operates continuously.	• Dirty air filter. Clean the air filter. • Temperature setting too low (cooling). Use higher temperature setting. • Temperature setting too high (heating), Use lower temperature setting.
10	No cool air comes out during cooling cycle, or no hot air comes out during heating cycle.	• Temperature setting too high (cooling). Use lower temperature setting. • Temperature setting too low (heating). Use higher temperature setting.
11	On heating cycle, warm air does not come out.	• Unit is in defrost mode. Heating operation will resume after defrost cycle ends.

Diagnostic Guidelines

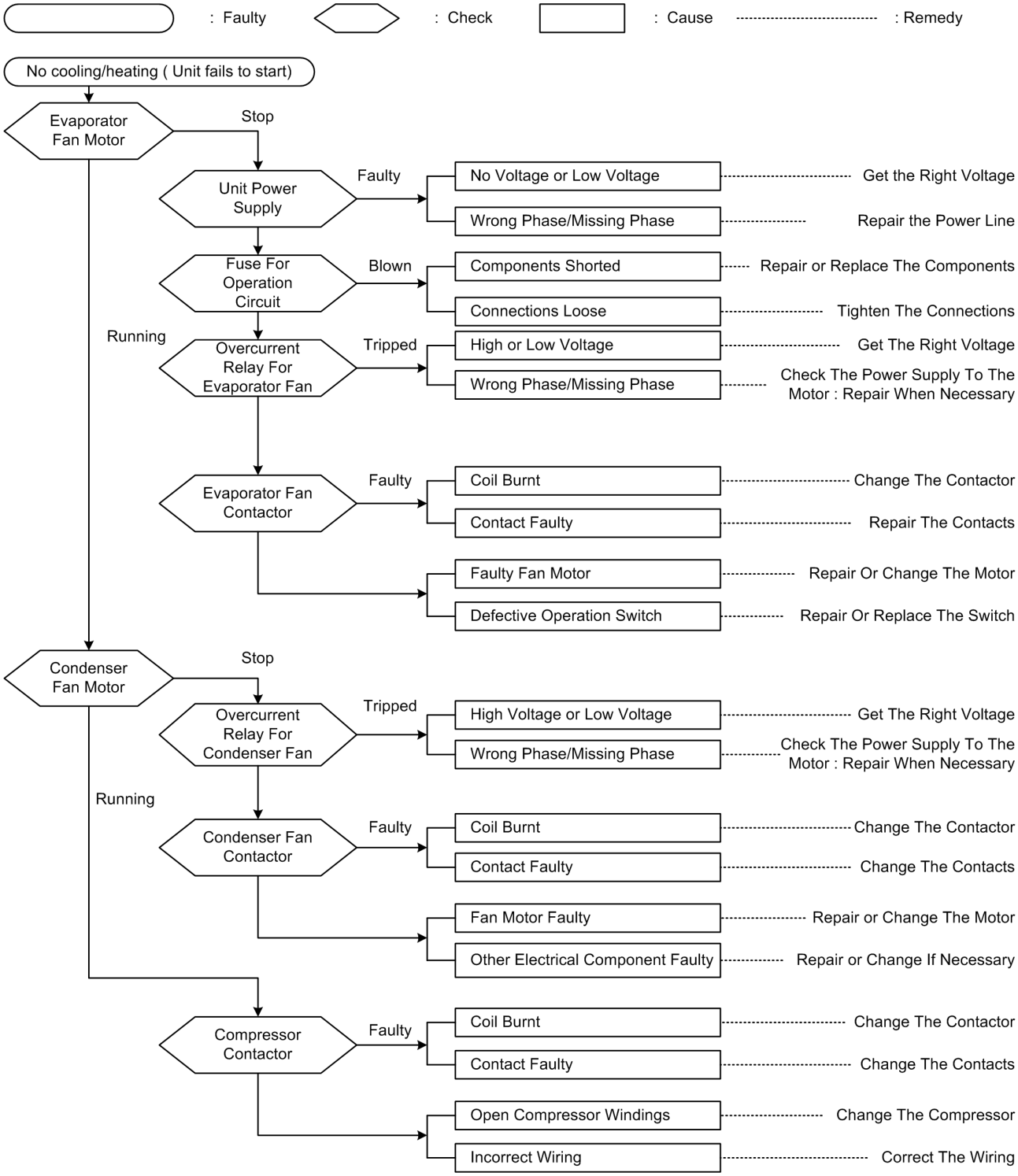
By means of pressure reading:

Data / Circuit	Pressure					Probable cause
	Too low	A little low	Normal	A little high	Too high	
High side **Low side**					● ●	1. Overcharged with refrigerant. 2. Non-condensable gases in refrigerant circuit (e.g. air) 3. Obstructed air-intake / discharge. 4. Hot air short circuiting in outdoor unit.
High side **Low side**	●				●	1. Poor compression / no compression (compressor defective) 2. Reversing valve leaking.
High side **Low side**	 ●	●				1. Undercharged with refrigerant. 2. Refrigerant leakage. 3. Air filter clogged / dirty (indoor unit). 4. Indoor fan locked / seized. 5. Defective defrost control, outdoor coil freeze up (heating). 6. Outdoor fan locked / seized (heating).
High side **Low side**				 ●	●	1. Outdoor fan blocked (cooling). 2. Outdoor coil dirty (cooling). 3. Indoor fan locked / seized (heating). 4. Indoor air filter clogged / dirty (heating). 5. Non-condensable gases in refrigerant circuit (e.g. air)
High side **Low side**				●	 ●	1. Air intake temperature of indoor unit too high.

By means of diagnostic flow chart:

Generally, there are two kinds of problems, i.e. starting failure and insufficient cooling/heating. “Starting failure” is caused by electrical defect while improper application or defects in refrigerant circuit causes “Insufficient cooling / heating”.

i) Diagnosis of Electric Circuit

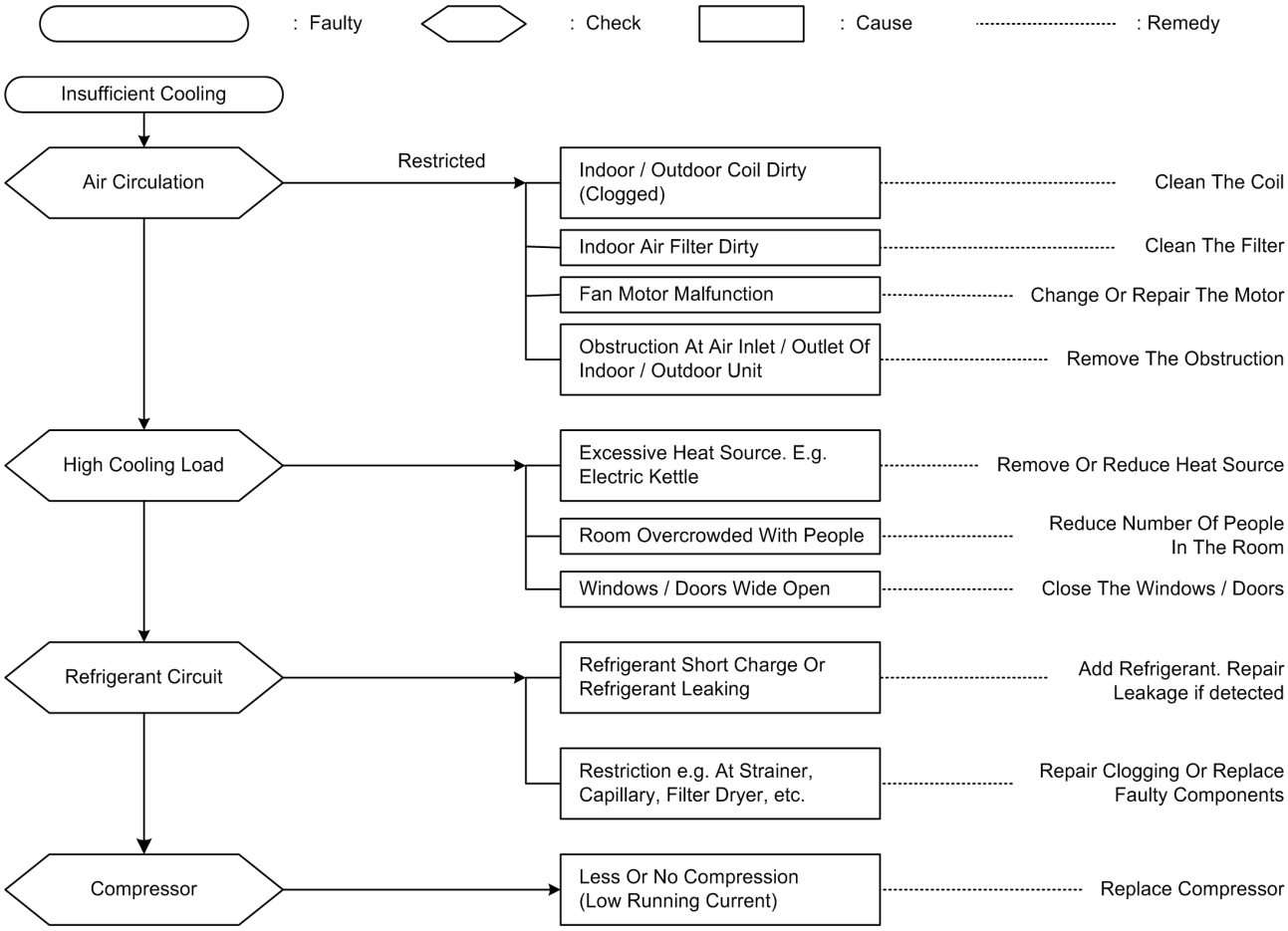


The most common causes of air conditioner failure to “start” are :

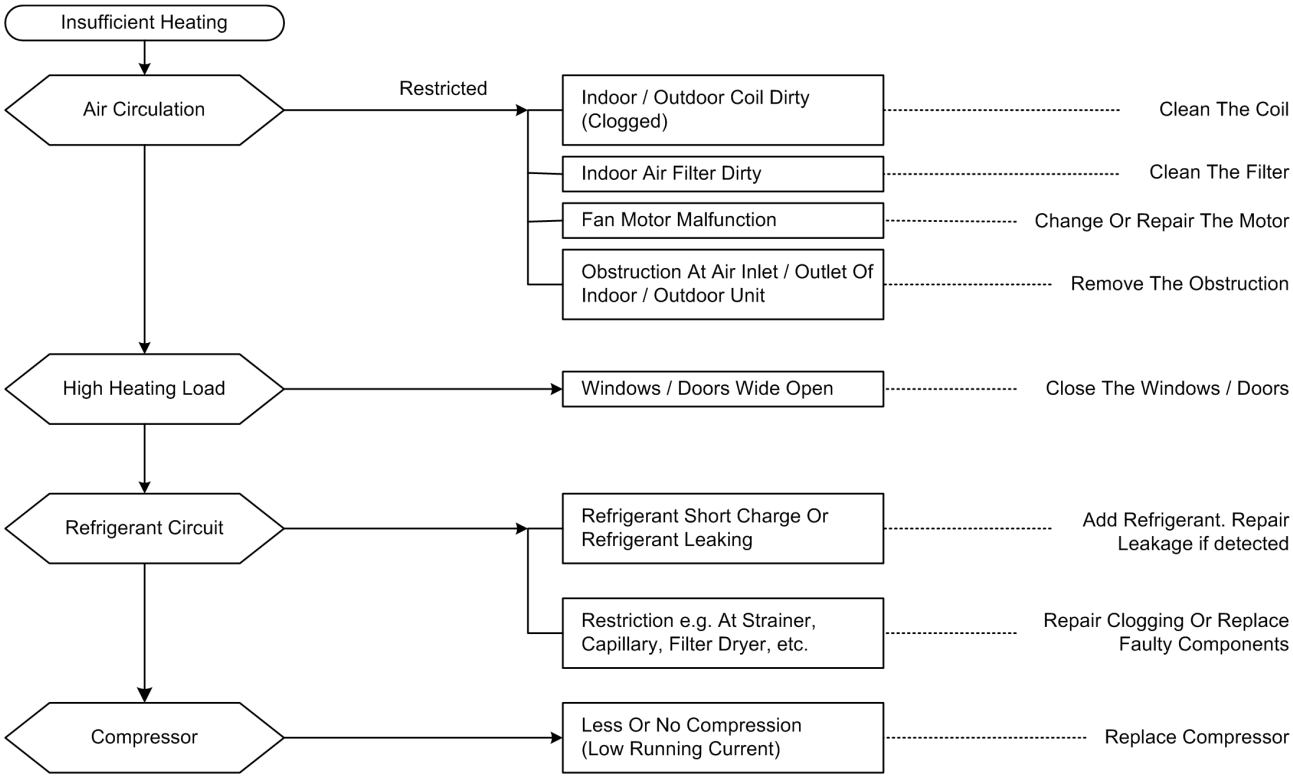
a) Voltage not within ±10% of rated voltage.
b) Power supply interrupted.
c) Improper control settings.
d) Air conditioner is disconnected from main power source.
e) Fuse blown or circuit breaker off.

ii) Diagnosis of Refrigerant Circuit / Application

There might be some causes where the unit starts running but does not perform satisfactorily, i.e. insufficient cooling. Judgement could be made by measuring temperature difference of indoor unit's intake and discharge air as well as running current.


: Faulty
: Check
: Cause
: Remedy
Insufficient Cooling
Air Circulation
Restricted
Indoor / Outdoor Coil Dirty (Clogged)
Clean The Coil
Indoor Air Filter Dirty
Clean The Filter
Fan Motor Malfunction
Change Or Repair The Motor
Obstruction At Air Inlet / Outlet Of Indoor / Outdoor Unit
Remove The Obstruction
High Cooling Load
Excessive Heat Source. E.g. Electric Kettle
Remove Or Reduce Heat Source
Room Overcrowded With People
Reduce Number Of People In The Room
Windows / Doors Wide Open
Close The Windows / Doors
Refrigerant Circuit
Refrigerant Short Charge Or Refrigerant Leaking
Add Refrigerant. Repair Leakage if detected
Restriction e.g. At Strainer, Capillary, Filter Dryer, etc.
Repair Clogging Or Replace Faulty Components
Compressor
Less Or No Compression (Low Running Current)
Replace Compressor

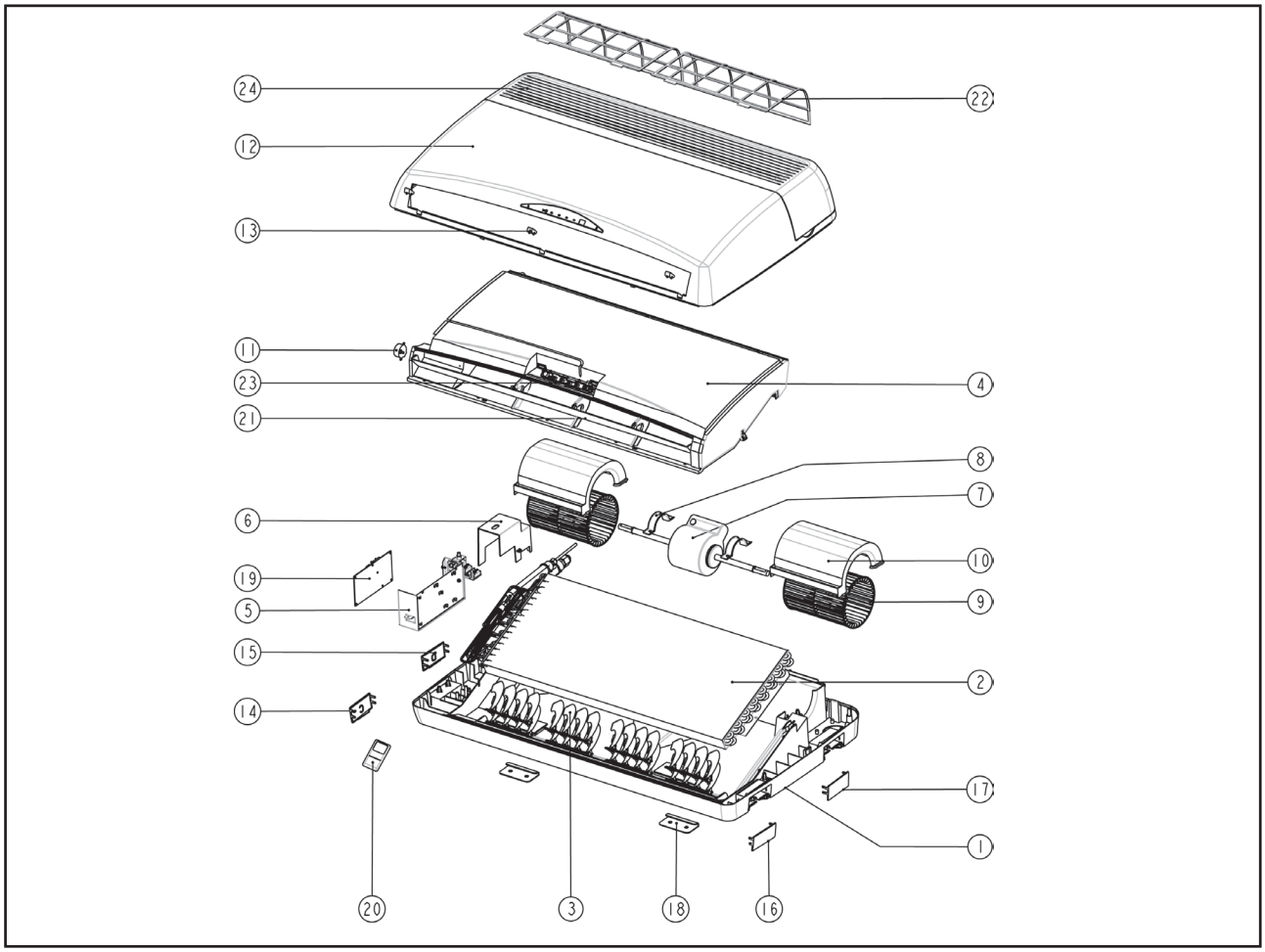
Satisfactory operation with temperature difference of air intake & discharge of indoor unit 8°C to 13°C. *
(* value is for reference only)


Insufficient Heating
Air Circulation
Restricted
Indoor / Outdoor Coil Dirty (Clogged)
Clean The Coil
Indoor Air Filter Dirty
Clean The Filter
Fan Motor Malfunction
Change Or Repair The Motor
Obstruction At Air Inlet / Outlet Of Indoor / Outdoor Unit
Remove The Obstruction
High Heating Load
Windows / Doors Wide Open
Close The Windows / Doors
Refrigerant Circuit
Refrigerant Short Charge Or Refrigerant Leaking
Add Refrigerant. Repair Leakage if detected
Restriction e.g. At Strainer, Capillary, Filter Dryer, etc.
Repair Clogging Or Replace Faulty Components
Compressor
Less Or No Compression (Low Running Current)
Replace Compressor

Satisfactory operation with temperature difference of air intake & discharge of indoor unit 14°C to 20°C. *
(* value is for reference only)

Exploded View & Parts List

MODEL: MCM / M5CM 015/020/025/028 E/ER



No	Description	Part No
1	Assy., Top Panel	R50124074907
2	Assy., Coil	
	MCM / M5CM 015E/ER	R50024085233
	MCM 020E/ER, M5CM 025E/ER	R50024071828
	M5CM 020E/ER	R50024080385
	MCM 025E/ER, MCM 028ER,M5CM 028E/ER	R50024074757
	MCM 028E	R50024075729
3	Assy., Vane	R50124074906
4	Assy., Drain Pan	
	MCM / M5CM 020/025/028E	R50124076123
	MCM / M5CM 020/025/028ER	R50124080076
5	Assy., Control Box	
	MCM / M5CM 015/020/025/028E (IONIZER)	R50044083484
	MCM / M5CM 020/025/028E (NTP)	R50044083700
	MCM / M5CM 015/020/025ER (IONIZER)	R50044080078
	MCM / M5CM 020/025ER (NTP)	R50044083701
	MCM / M5CM 028ER (IONIZER)	R50044080079
	MCM / M5CM 028ER (NTP)	R50044083702
6	Cover, Control Box	R01014069872
7	Motor	
	MCM / M5CM 015E/ER	R03034085800
	MCM / M5CM 020E/ER	R03039023304
	MCM / M5CM 025E/ER	R03039023305
	MCM / M5CM 028E/ER	R03039023306

No	Description	Part No
8	Motor, Bracket	R01014071324
9	Blower Wheel	R03024004754
10	Blower Housing	R12014071385
11	Motor, Air Swing	R03039023303
12	Assy., Bottom Panel	R50124074909
13	Cover, Hanger L1 (C)	R12014071354
14	Cover, Hanger L2 (D)	R12014071355
15	Cover, Hanger R1 (A)	R12014071356
16	Cover, Hanger R2 (B)	R12014071357
17	Mounting Bracket	R01014071319
18	Control Module	
	MCM / M5CM 020/025/028E (IONIZER)	R04089023399
	MCM / M5CM 020/025/028E (NTP)	R04089023670
	MCM / M5CM 020/025/028ER (IONIZER)	R04089023668
	MCM / M5CM 020/025/028ER (NTP)	R04089023667
19	G11 Handset (Cooling Only)	R04084065334
	G11 Handset (Heatpump)	R04084067314
20	Louver	R12014071335
21	Saranet Filter	R12014071342
22	Assy., LED Board	
	MCM / M5CM 020/025/028E	R50044076124
	MCM / M5CM 020/025/028ER	R50044080080
23	Air Intake Grille	R12014071341

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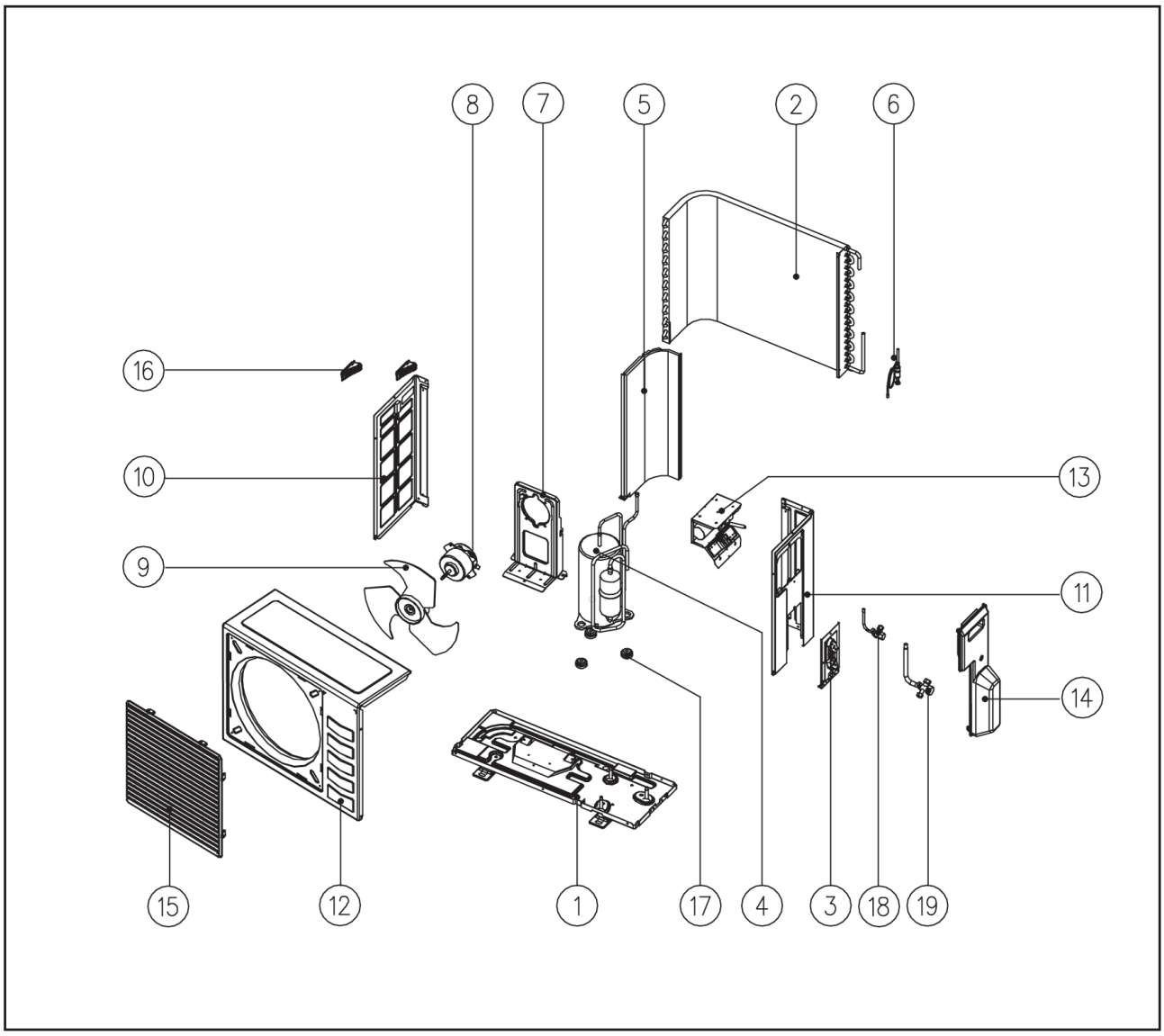
MODEL: MLC / M5LC 015C



No	Description	Part No
1	Assy. Base Pan	R50014051158
2	Assy. Outdoor Coil	
	MLC 015C	A50024087838
	M5LC 015C	R50024084998
3	Valve Bracket	R01014051164
4	Compressor	
	MLC 015C	A04019027709
	M5LC 015C	R04019026326
5	Assy., Partition	R50064055063
6	Assy., Cap Tube	R50024087757
7	Bracket, Fan Motor	R01014051162
8	Fan Motor	R03039015323
9	Fan Blade	R03019015339
10	Left Panel	R01014051166
11	Right Panel	R01014051167
12	Assy., Front Panel	R01014051171

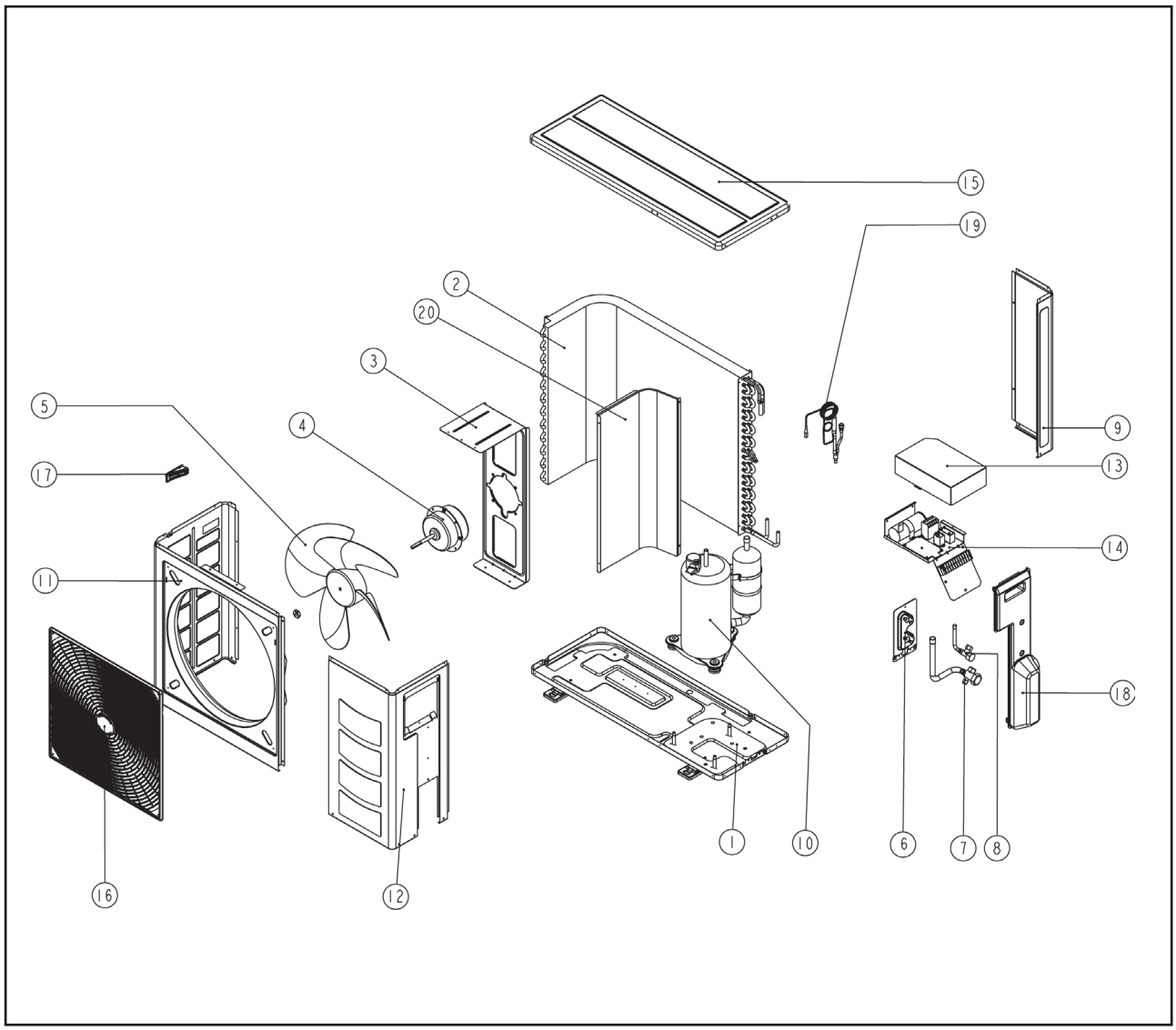
No	Description	Part No
13	Assy., Control Panel	R50044086056
14	Assy., Valve Cover	R50124051173
15	Assy., Front Grille	R50124056700
16	Plastic Handle	R12014057948
17	Rubber Grommet	R11054000271
18	Assy., Flare Valve 2 Ways 1/4"	
	MLC 015C	R50054054950
	M5LC 015C	R50059019453
19	Assy., Flare Valve 3 Ways 1/2"	
	MLC 015C	R50054064042
	M5LC 015C	R50059019452

Parts Not in Diagram

	Capacitor, Fan Motor	R04029026755
	Capacitor, Compressor	
	MLC 015C	R04029026775
	M5LC 015C	R04029026776

1) ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE

MODEL: MLC 018 / 020C, M5LC 020C



No	Description	Part No
1	Assy. Base Pan	R50014078281
2	Assy. Outdoor Coil	
	MLC 018C	R50024089940
	MLC 020C	A50024084570
	M5LC 020C	R50024079078
3	Motor Bracket	R01014070601
4	Fan Motor	R03039024539
5	Fan Blade	R03019023393
6	Valve Bracket	
	MLC 018/020C	A50014072861
	M5LC 020C	R50014078280
7	MLC 018/020C	
	Assy. Flare Valve 3 Ways 5/8"	R50054072863
	M5LC 020C	
	Assy. Flare Valve 3 Ways 1/2"	R50059023335
8	Assy. Flare Valve 2 Ways 1/4"	
	MLC 018/020C	R50059022156
	M5LC 020C	R50059023334
9	Back Panel, Right	R01014070599

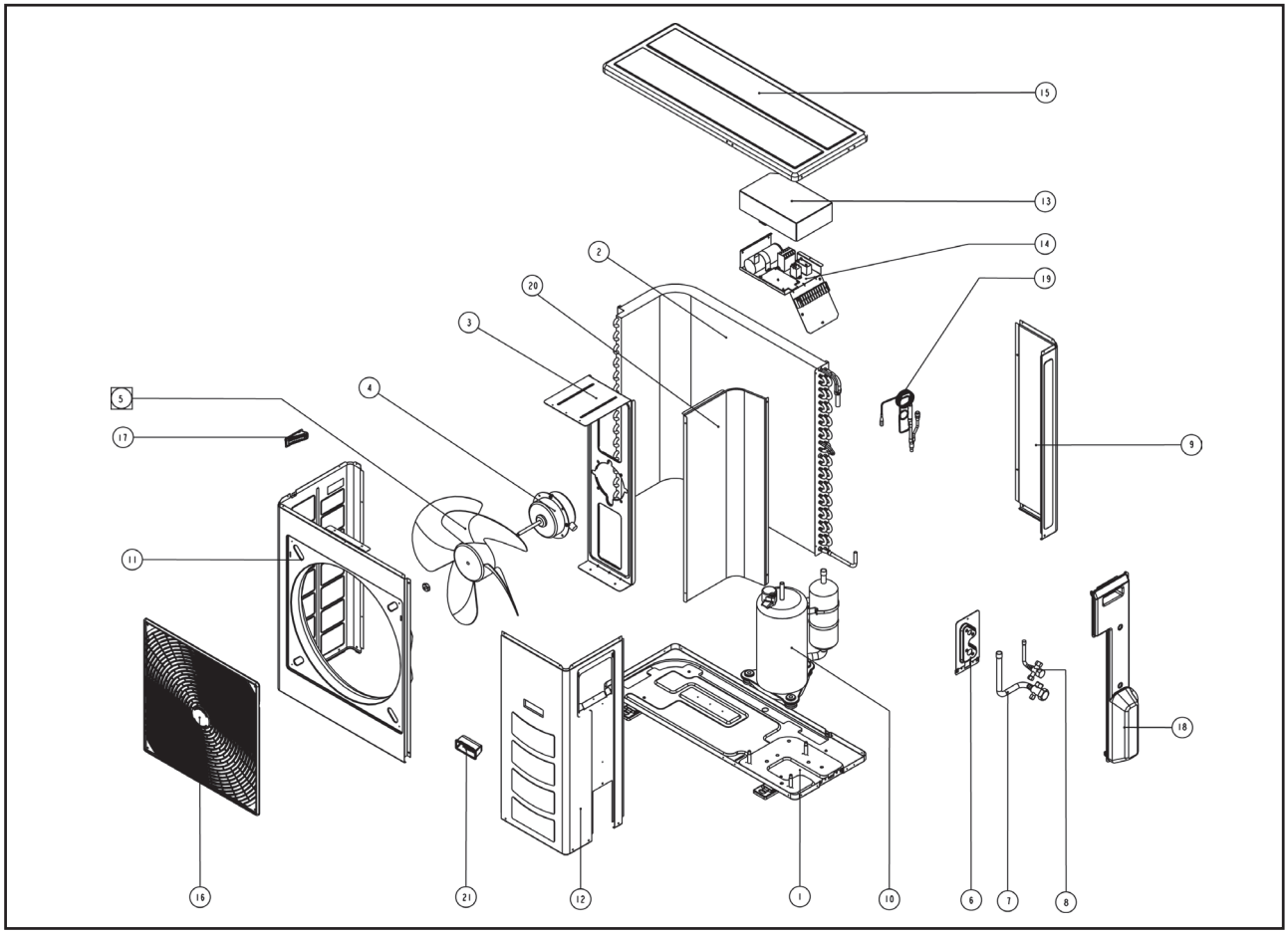
No	Description	Part No
10	Compressor	
	MLC 018/020C	A04019027266
	M5LC 020C	R04019020625
11	Front Panel, Left	R01014070597
12	Service Panel	R01014070598
13	Terminal Cover Panel	R01014070838
14	Assy. Control Panel	R50014072877
15	Top Panel	R01014070596
16	Assy. Front Grille	R50124072880
17	Plastic Handle	R12014057948
18	Assy. Valve Cover	R50124072885
19	Assy. Cap Tube	
	MLC 018C	R50024089926
	MLC 020C	A50024087066
	M5LC 020C	R50024081921
20	Partition	R01014070603

Parts Not in Diagram

	Capacitor, Fan Motor	R04029026759
	Capacitor, Compressor	
	MLC 018/020C	R04029026782
	M5LC 020C	R04029026779

1) ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE

MODEL: MLC / M5LC 025 / 028C



No	Description	Part No
1	Assy. Base Pan	R50014073884
2	Assy. Outdoor Coil	
	MLC 025C	R50024089206
	M5LC 025/028C	R50024079238
	MLC 028C	A50024070959
3	Motor Bracket	R01014070948
4	Fan Motor	
	MLC 025C	R03039028207
	M5LC 025C	R03039023391
	MLC / M5LC 028C	R03039024538
5	Fan Blade	R03019023393
6	Valve Bracket	
	MLC 025/028C	A50014073890
	M5LC 025C	R50014078321
	M5LC 028C	R50014080371
7	Assy. Flare Valve 3 Ways 5/8"	
	MLC 025/028C	R50054072863
	M5LC 025/028C	R50059023336
8	MLC 025/028C	
	Assy. Flare Valve 3 Ways 3/8"	R50059022577
	M5LC 025C	
	Assy. Flare Valve 2 Ways 1/4"	R50059023334
	M5LC 028C	
	Assy. Flare Valve 3 Ways 3/8"	R50059024820
9	Back Panel, Right	R01014070950

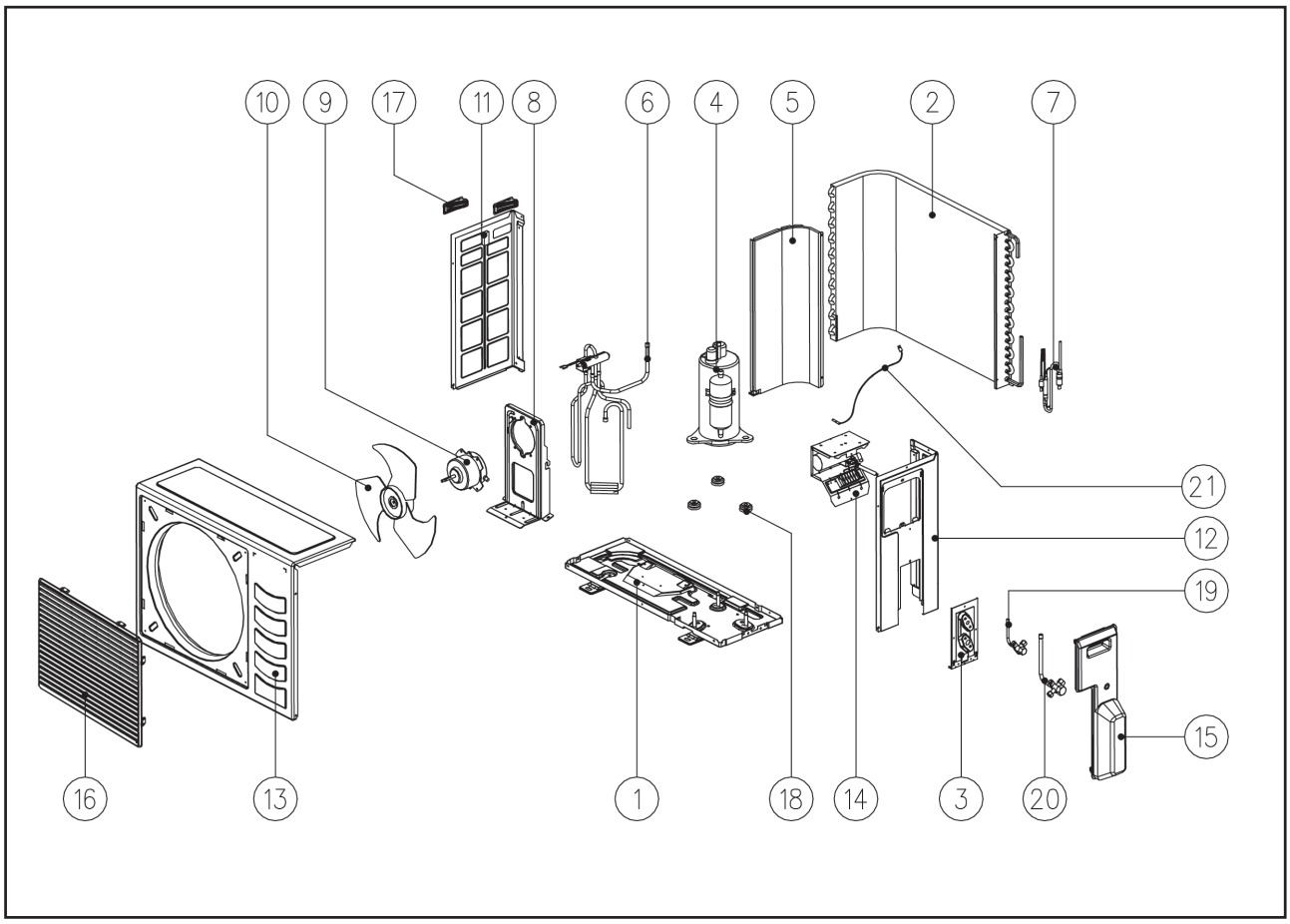
No	Description	Part No
10	Compressor	
	MLC 025C	A04019027570
	M5LC 025C	R04019021361
	MLC 028C	R04019012828
	M5LC 028C	R04019020449
11	Front Panel, Left	R01014070947
12	Service Panel	R01014070949
13	Terminal Cover Panel	A01014070838
14	Assy. Control Panel	
	MLC / M5LC 025C	R50044086076
	MLC 028C	R50044086137
	M5LC 028C	R50044086138
15	Top Panel	R01014070596
16	Assy. Front Grille	R50124072880
17	Plastic Handle, Side	R12014057948
18	Assy. Valve Cover	R50124073905
19	Assy. Cap Tube	
	MLC 025C	R50024090095
	M5LC 025C	R50024081916
	M5LC 028C	R50024079593
20	Partition	R01014070951
21	Plastic Handle, Front	R12014070955

Parts Not in Diagram

	Capacitor, Fan Motor	
	MLC / M5LC 025C	R04029026759
	MLC / M5LC 028C	R04029026966
	Capacitor, Compressor	
	MLC / M5LC 025C, MLC 028C	R04029026779
	M5LC 028C	R04029026778

1) ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE

MODEL: MLC / M5LC 015CR



No	Description	Part No
1	Assy. Base Pan	R50014051158
2	Assy. Outdoor Coil	
	MLC 015CR	A50024086953
	M5LC 015CR	R50024084998
3	Valve Bracket	R01014051164
4	Compressor	
	MLC 015CR	R04019019125
	M5LC 015CR	R04019026326
5	Assy., Partition	R50064055063
6	Assy., 4 Way Valve	
	MLC 015CR	A50024087158
	M5LC 015CR	R50024084737
7	Assy., Cap Tube	
	MLC 015CR	A50024087023
	M5LC 015CR	R50024084738
8	Bracket, Fan Motor	R01014051162
9	Fan Motor	R03039015323
10	Fan Blade	R03019015339

No	Description	Part No
11	Left Panel	R01014051166
12	Right Panel	R01014051167
13	Assy., Front Panel	R01014051171
14	Assy., Control Panel	R50044086063
15	Assy., Valve Cover	R50124051173
16	Assy., Front Grille	R50124056700
17	Plastic Handle	R12014057948
18	Rubber Grommet	R11054000271
19	Assy., Flare Valve 2 Ways 1/4"	
	MLC 015CR	R50054054950
	M5LC 015CR	R50059019453
20	Assy., Flare Valve 3 Ways 1/2"	
	MLC 015CR	R50054064042
	M5LC 015CR	R50059019452
21	Sensor, Outdoor Defrost	R50134039416

Parts Not in Diagram

	Capacitor, Fan Motor	R04029026755
	Capacitor, Compressor	R04029026776

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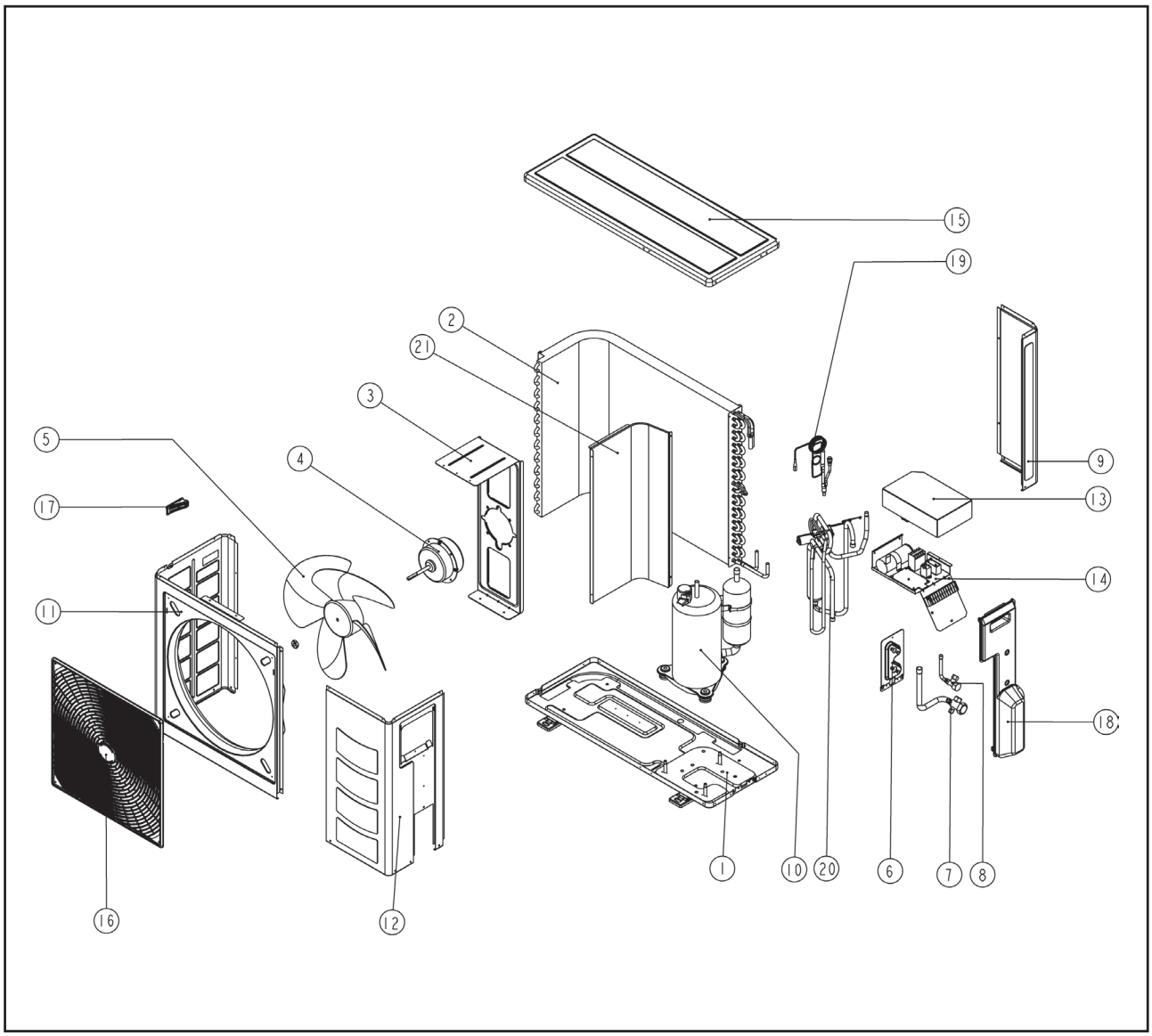
MODEL: MLC 018CR, MLC / M5LC 020CR



No	Description	Part No
1	Assy. Base Pan	R50014078281
2	Assy. Outdoor Coil	
	MLC 018CR	R50024090296
	MLC / M5LC 020CR	R50024075143
3	Motor Bracket	R01014070601
4	Fan Motor	R03039024539
5	Fan Blade	R03019023393
6	Valve Bracket	
	MLC 018/020CR	A50014072861
	M5LC 020CR	R50014078280
7	MLC 018/020CR	
	Assy. Flare Valve 3 Ways 5/8"	R50054072863
	M5LC 020CR	
	Assy. Flare Valve 3 Ways 1/2"	R50059023335
8	Assy. Flare Valve 2 Ways 1/4"	
	MLC 018/020CR	R50059022156
	M5LC 020CR	R50059023334
9	Back Panel, Right	R01014070599
10	Compressor	
	MLC 018/020CR	A04019027266
	M5LC 020CR	R04019020625

No	Description	Part No
11	Front Panel, Left	R01014070597
12	Service Panel	R01014070598
13	Terminal Cover Panel	R01014070838
14	Assy. Control Panel	R50014072877
15	Top Panel	R01014070596
16	Assy. Front Grille	R50124072880
17	Plastic Handle	R12014057948
18	Assy. Valve Cover	R50124072885
19	Assy. Cap Tube	
	MLC 018CR	R50024089931
	MLC 020CR	R50024087058
	M5LC 020CR	R50024081904
20	Assy. 4 Way Valve	
	MLC 018/020CR	R50054077222
	M5LC 020CR	R50059024520
21	Partition	R01014070603

Parts Not in Diagram

	Capacitor, Fan Motor	R04029026759
	Capacitor, Compressor	
	MLC 018/020CR	R04029026782
	M5LC 020CR	R04029026779

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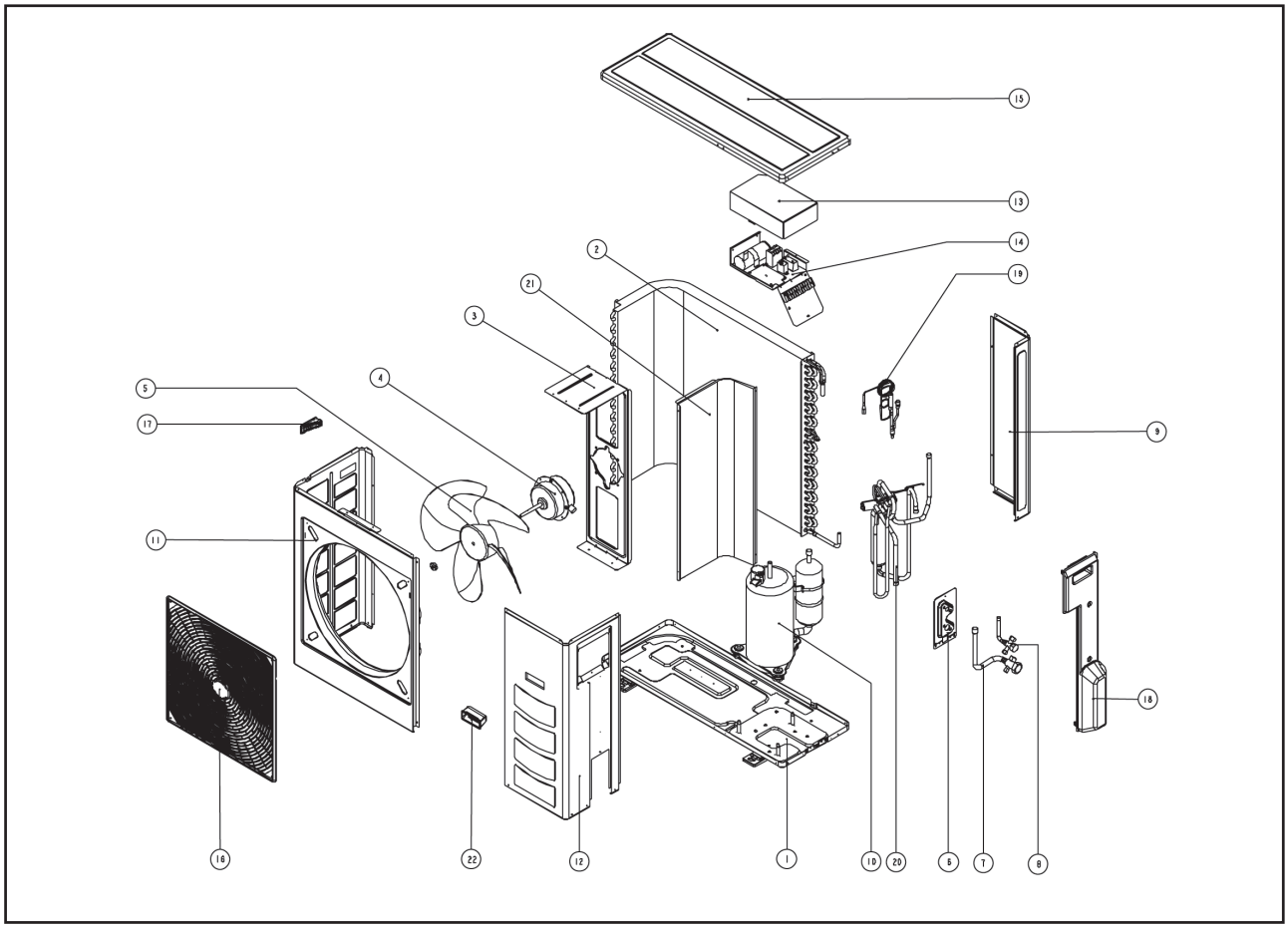
MODEL: MLC / M5LC 025 / 028CR



No	Description	Part No
1	Assy. Base Pan	R50014073884
2	Assy. Outdoor Coil	
	MLC 025CR	R50024088731
	M5LC 025/028CR	R50024075147
	MLC 028CR	A50024082133
3	Motor Bracket	R01014070948
4	Fan Motor	
	MLC 025CR	R03039028207
	M5LC 025CR	R03039023391
	MLC / M5LC 028CR	R03039024538
5	Fan Blade	R03019023393
6	Valve Bracket	
	MLC 025/028CR	A50014073890
	M5LC 025CR	R50014078321
	M5LC 028CR	R50014080371
7	Assy. Flare Valve 3 Ways 5/8"	
	MLC 025/028CR	R50054072863
	M5LC 025/028CR	R50059023336
8	MLC 025/028CR	
	Assy. Flare Valve 3 Ways 3/8"	R50059022577
	M5LC 025CR	
	Assy. Flare Valve 2 Ways 1/4"	R50059023334
	M5LC 028CR	
	Assy. Flare Valve 3 Ways 3/8"	R50059024820
9	Back Panel, Right	R01014070950
10	Compressor	
	MLC 025CR	A04019027570
	M5LC 025CR	R04019021361
	MLC 028CR	R04019012828
	M5LC 028CR	R04019020449

No	Description	Part No
11	Front Panel, Left	R01014070947
12	Service Panel	R01014070949
13	Terminal Cover Panel	R01014070838
14	Assy. Control Panel	
	MLC / M5LC 025CR	R50044086136
	MLC 028CR	R50044086139
	M5LC 028CR	R50044086140
15	Top Panel	R01014070596
16	Assy. Front Grille	R50124072880
17	Plastic Handle, Side	R12014057948
18	Assy. Valve Cover	R50124073905
19	Assy.Cap Tube	
	MLC 025CR	R50024088789
	M5LC 025CR	R50024081899
	MLC 028CR	A50024080186
	M5LC 028CR	R50024080312
20	Assy. 4 Way Valve	
	MLC 025/028CR	R50054077222
	M5LC 025/028CR	R50059024520
21	Partition	R01014070951
22	Plastic Handle, Front	R12014070955

Parts Not in Diagram

	Capacitor, Fan Motor	
	MLC /M5LC 025CR	R04029026759
	MLC /M5LC 028CR	R04029026966
	Capacitor, Compressor	
	MLC /M5LC 025CR, MLC 028CR	R04029026779
	M5LC 028CR	R04029026778

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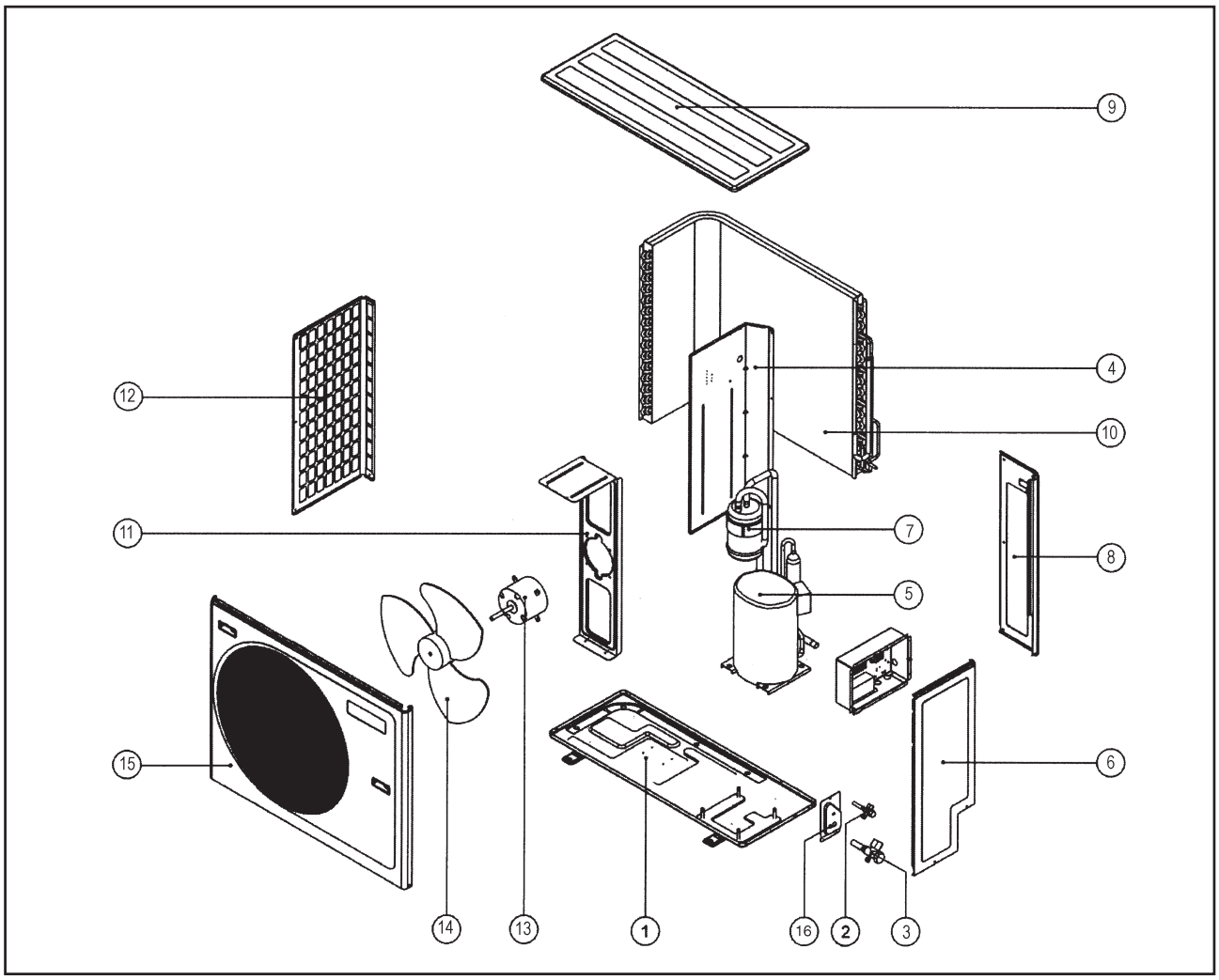
MODEL: MLC 030C/CR, M5LC 035 C/CR



No	Description	Part No
1	Assy. Base Pan	R50014053238
2	Assy. Flare Valve 3/8"	
	MLC 030C/CR	R50059000221
	M5LC 035C/CR	R50059017536
3	Assy. Flare Valve 5/8"	
	MLC 030C/CR	R50059000071
	M5LC 035C/CR	R50059020805
4	Panel, Partition	R50014053277
5	Compressor	
	MLC 030C/CR	
	220-240V/1PH/50Hz	R50049013221
	380-415V/3PH/50Hz	R50049019889
	M5LC 035C/CR	
	220-240V/1PH/50Hz	R50049025547
	380-415V/3PH/50Hz	R50049025336
6	Service Panel	R01010029898
7	Accumulator	
	MLC 030C/CR	R02119025988
	M5LC 035C/CR	R02119024262
8	Back Panel, Right	R01014053233
9	Top Panel	R01011029900
10	Assy. Coil	
	MLC 030C	A50024041851
	MLC 030CR	A50024035282
	M5LC 035C/CR	R50024082878

No	Description	Part No
11	Bracket, Fan Motor	R01014053232
12	Side Panel, Left	R01010029899
13	Fan Motor	R03039004046
14	Fan Blade	R03013028160
15	Assy. Front Panel	R50014053236
16	Plate, Flare Vlave	R01013034235

Parts Not in Diagram

	Phase Sequencer	R04089017029
	High Pressure Switch	
	MLC 030C/CR	R04109015136
	M5LC 035C/CR	R04104061879
	Low Pressure Switch	
	MLC 030C	R04109015125
	M5LC 035C/CR	R04109015400
	Assy. 4 Way Valve	
	MLC 030CR	R05029001991
	M5LC 035CR	R50024087051
	Capacitor, Fan Motor	R04029026761
	Capacitor, Compressor	
	MLC 030C/CR	R04029026779
	M5LC 035C	R04029026782
	TXV	R05019020252

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